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# Nebraska Behavioral Risk Factor Surveillance System Report



2001-2003

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# **Nebraska Behavioral Risk Factor Surveillance System Report 2001 – 2003**

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# EXECUTIVE SUMMARY

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## **INTRODUCTION**

The Nebraska Behavioral Risk Factor Surveillance System (BRFSS) has been conducting surveys annually since 1986 for the purpose of collecting data on the prevalence of major health risk factors among adults residing in the state. Information gathered in these studies can be used to target health education and risk reduction activities throughout the state in order to lower rates of premature death and disability.

## **METHODOLOGY**

This surveillance system is based on a research design developed by the Centers for Disease Control and Prevention (CDC) and used in all 50 states, the District of Columbia, and 3 U.S. territories.

Telephone surveys with 13,061 randomly selected Nebraska residents aged 18 and older were conducted by the Nebraska Health and Human Services System during 2001, 2002, and 2003. To increase the number of respondents who are members of racial and ethnic minority groups, a separate “Minority BRFSS” was conducted in each of the three years with adults aged 18 and older in Nebraska census tracts with large racial and ethnic minority populations. Respondents from this study combined with racial and ethnic minority respondents from the “main” study make up the “minority” sample of 4,941 respondents.

## **SUMMARY OF RESULTS**

A comparison of prevalence estimates for selected risk factors for Nebraska and the nation is shown in Table 1. In general, prevalence rates for most risk factors and measures of health for Nebraska were similar to the national medians. Still, some differences were noted, particularly in rates for preventive measures and good health habits.

Although the uninsured rate has risen in the last few years, Nebraska fared slightly better than the United States as a whole in proportion of adults without health insurance.

Health status of Nebraskans was slightly better than that of Americans overall. For example, the proportions of adults with high blood pressure or high blood cholesterol levels were a little smaller than corresponding rates for the nation. The proportion of Nebraskans who reported that their health was fair or poor was one percentage point lower than the nationwide rate.

Differences in prevalence of risk behaviors were generally small. Prevalence of cigarette smoking in Nebraska has changed little from previous studies, but was a little lower than the national rate. Slightly higher rates of obesity, physical inactivity, and binge drinking were reported for Nebraskans than for adults nationwide.

However, differences in prevalence of some good health habits and preventive measures were larger. For example, Nebraska adults were much less likely than adults nationwide to report always wearing their seatbelts when driving or riding in a motor vehicle. Compared to American adults overall, Nebraska adults were less likely to consume fruits and vegetables at least five times a day.

The proportion of Nebraskans aged 50 or older who ever had a colonoscopy or sigmoidoscopy to screen for colon cancer was much lower than the nationwide rate. Fewer Nebraskans also reported having their blood cholesterol level checked in the past five years.

In other preventive measures, Nebraska performed better than the nation. A greater proportion of adults aged 65 and older had a flu shot in the past year. Nebraska adults were also more likely to have visited their dentist and to have had their teeth cleaned by a dental professional in the last 12 months.

Analysis of behavioral risk factor data also indicates that certain population subgroups are at greater risk for premature death and disability than the population as a whole. Young adults aged 18 to 29, persons with less education (particularly those who have not completed high school), and persons with low household incomes are often at greater risk due to health-related behaviors measured in this study.

Results of this study also show that racial and ethnic minority groups in Nebraska are generally at greater risk for premature death and disability than the white population of the state. African Americans and Hispanic Americans reported poorer health status and greater prevalence of some risk behaviors. They were also less likely to have access to health care. Hispanic Nebraskans in particular were less likely than persons in other racial and ethnic groups to have received recommended screenings and preventive care. (Sample size for Native Americans and Asian Americans was insufficient to do an overall analysis for them.)

Prevalence of many risk factors was similar for rural and urban Nebraskans. However, rural Nebraskans were at greater risk than those living in urban counties due to lack of health insurance. Rural residents were also much less likely to receive recommended health screening and preventive care.

## **HIGHLIGHTS FOR SPECIFIC RISK FACTORS**

### **Health Status**

- As in past studies, the majority of Nebraska adults (87 percent) rated their general health “good” to “excellent”. However, 13 percent characterized their health as “fair” or “poor”.
- Respondents reported an average of 2.9 days in the past 30 days when they felt their physical health was “not good.” The number of days when mental health was “not good” averaged 2.6 days.

### **Disability and Quality of Life**

- Fifteen percent of adults responding to the Nebraska BRFSS stated that they experience limitation in one or more activities due to “physical, mental, or emotional problems.” Five percent of respondents said they now have a health problem that requires them to use special equipment, such as a cane or wheelchair. Respondents who reported having an activity limitation or a health problem requiring use of special equipment are defined in this study as having a disability.
- Among adults who have a disability, 10 percent stated they need help with their personal care needs (e.g., eating, bathing, dressing). More than one-fourth (27 percent) indicated they require help with routine needs, such as household chores, shopping, or doing necessary business.
- Adults with disabilities reported significantly more days of limited activity or other negative health effects than persons who did not have a disability. For example, persons with a disability had nearly nine times as many days in the past month when pain made it difficult for them to do their daily activities (12.4 days) as persons who did not have a disability (1.4 days). Respondents with a disability had more than 3 times as many days when they felt sad or depressed (6.9 days) as those with no disability (2.1 days).

### **Access to Health Care**

- Among Nebraskans aged 18 to 64 years, 15 percent stated they did not have any type of health care coverage at the time of the survey.
- From 1993 to 2000, the proportion of uninsured adults under age 65 remained fairly steady at 10 to 11 percent. In 2001, the rate rose sharply to 16 percent and then dropped back to 14 percent in 2002 and 2003.
- Sixteen percent of adult Nebraskans do not have someone they consider their personal doctor or health care provider.
- In 2003, nine percent of BRFSS respondents reported that, at least once in the past 12 months, they had been unable to see a doctor due to potential cost of care.

### **Cardiovascular Disease**

- Only 10 percent of adults aged 18 and older were able to correctly identify all five signs or symptoms of a heart attack mentioned in the 2003 survey.

- Overall, 19 percent of adults surveyed correctly identified all five symptoms of stroke included in this survey.
- If they thought someone was having a heart attack or stroke, the majority of BRFSS respondents (85 percent) said the first thing they would do is call 9-1-1 (the emergency response recommended in case of heart attack or stroke).
- In general, adult Nebraskans were much more likely to adopt lifestyle changes aimed at preventing heart attack or stroke than they were to have been advised by a health professional to make these changes.
- The majority of 2003 BRFSS respondents reported: eating fewer high fat or high cholesterol foods (67 percent), eating more fruits and vegetables (72 percent), or being more physically active (70 percent) to lower their risk of cardiovascular disease. In contrast, the proportions of respondents who had been given these recommendations by a doctor or other health professional ranged from 16 to 26 percent.
- Four percent of respondents reported being told they had a heart attack. Four percent were informed they had angina or coronary heart disease. Two percent had ever been told they had a stroke.
- Persons who had been told by a doctor or other professional that they had a heart attack (80 percent), coronary heart disease (76 percent), or stroke (63 percent) were significantly more likely to use aspirin daily or every other day than those who had not experienced these cardiovascular conditions.

### **Diabetes**

- Six percent of adults in Nebraska said a doctor had told them that they have diabetes.
- Prevalence of diabetes among the adult population remained fairly constant at four to five percent between 1994 and 2001. In 2002 and 2003, self-reported prevalence increased to about six percent.

### **Arthritis**

- Altogether, 45 percent of BRFSS respondents had either “probable” or “diagnosed” arthritis.
- Thirty percent of persons with probable or diagnosed arthritis reported activity limitations due to this condition.
- Despite the fact that 30 percent of those with arthritis were limited in some way in their activities, 82 percent of them stated that they could do “everything” or “most things I would like to do”. However, 18 percent indicated they can only do “some things” or “hardly anything” they would like to do.

### **Asthma**

- One of every ten adults in Nebraska (10 percent) stated that a doctor or other health professional had at some time told them they had asthma. When asked if they still have asthma, the majority (70 percent) said they do. This translates into a current prevalence estimate of about seven percent among Nebraska adults.

### **Skin Cancer**

- To lessen the chances of developing skin cancer, the American Cancer Society recommends avoiding or limiting exposure to the sun when its ultraviolet rays are strongest. Overall, 42 percent of adults aged 18 and older indicated they had gotten a sunburn at least once in the 12 months prior to the survey.
- Recent sunburns were much more common in the younger age brackets, with the majority of respondents under age 45 reporting at least one sunburn in the past year.

### **Injury Prevention**

- More than two-thirds of adult Nebraskans surveyed in 2002 reported that they “always” use a safety belt when driving or riding in a car.
- Falls are the second leading cause of unintentional injury deaths in Nebraska. Twelve percent of individuals aged 45 and older said they had a fall in the past three months. Among these persons who had fallen, 29 percent stated they had been injured.
- Efforts to promote proper storage of firearms in homes would reduce the likelihood of both unintentional injuries and injuries from violence-related causes. Altogether, 40 percent of Nebraska BRFSS respondents stated that firearms were kept in or around their homes. About five percent of all respondents who have firearms in or around their homes reported that they currently have these

weapons loaded and unlocked.

### **Alcohol Misuse**

- Binge drinking was much more prevalent than either heavy drinking or drinking and driving among BRFSS respondents. In 2001-2003, 17 percent of adults stated that they had five or more alcoholic drinks on at least one occasion during the past month. In contrast, only five percent reported heavy drinking and five percent (in 2002) said they drove a motor vehicle after drinking alcohol in the month prior to the interview.
- On their last binge-drinking occasion, Nebraska adults averaged far more beers (6.0 drinks) than they did liquor/cocktails (1.4) or glasses of wine/similar drinks (0.4).
- About one-fifth of adult binge drinkers (21 percent) stated that they had driven a motor vehicle while they were binge drinking or within a couple of hours of it.

### **Tobacco Use**

- In 2001-2003, more than one-fifth (21 percent) of Nebraskans aged 18 and older stated that they are current smokers. Smoking prevalence has remained nearly steady throughout the 1990's and the current study.
- Current prevalence of other forms of tobacco use is lower: cigars (six percent), and pipe smoking and bidis (less than one percent each). Eight percent of Nebraska men currently use chewing tobacco and/or snuff.
- Three-fourths of Nebraska adults (75 percent) stated that smoking is not allowed anywhere inside their homes.

### **Overweight and Obesity**

- In 2001-2003, 23 percent of Nebraska BRFSS respondents reported heights and weights that placed them in the "obese" category. More than one-third (37 percent) were classified as "overweight but not obese". Thus, a total of 60 percent of Nebraska adults were categorized as "overweight or obese" with a Body Mass Index rating of 25.0 or greater.
- The proportion of adults who are at risk due to overweight or obesity has increased considerably over the years. Prevalence has increased by 15 percentage points—from 46 percent in 1989 to 61 percent in 2003.
- The greatest share of the increase in overweight and obesity has occurred in the obese category. Prevalence of obesity among Nebraska adults has nearly doubled since 1992.
- Two-thirds of obese respondents (67 percent) reported that they were currently trying to lose weight, compared to 42 percent of respondents who were overweight but not obese.
- Altogether, 63 percent of respondents who were trying to lose weight said they were using a combination of increased physical activity and reduced calorie or fat intake to reach their objective.

### **Consumption of Fruits and Vegetables**

- More than 8 out of 10 Nebraska adults (82 percent) ate fruits and vegetables less frequently than the five or more times daily needed for good nutrition.

### **Folic Acid**

- Fewer than one-half of all women of childbearing age (47 percent) were able to correctly state that health experts recommend taking folic acid to prevent birth defects.
- A similar proportion (46 percent) of women in this age group (18 to 44 years) indicated that they are receiving the optimal level of folic acid through dietary supplements.

### **Physical Activity Levels**

- One-fourth of Nebraska adults (25 percent) stated they had not participated in any physical activities or exercise outside of their regular job in the past month.
- In a "usual week", 4 of every 10 adults (39 percent) participated in "moderate physical activity" (i.e., 30 or more minutes per day of activities that cause small increases in breathing or heart rate for five or more days per week).
- Nearly one-fifth of respondents (19 percent) engaged in vigorous activities (i.e., those causing large increases in breathing or heart rate) for 20 or more minutes per day on 3 or more days of the week.

## **High Blood Pressure**

- The proportion of adults who have ever been told by a health professional that their blood pressure is high has remained fairly stable since 1987, with 23 percent reporting this condition in 2001-2003.
- Among respondents who had ever been told their blood pressure is high, 77 percent said they were currently taking medication for it.

## **Cholesterol Screening**

- The majority of BRFSS respondents (66 percent) had their blood cholesterol level tested in the past five years.
- Among respondents who reported ever having their blood cholesterol level checked, 29 percent said their doctor or other health professional told them it is high.

## **Colorectal Cancer Screening**

- Of all Nebraska respondents aged 50 and older, only one-third (32 percent) stated that they had a blood stool test (using a home kit) within the past two years to screen for colorectal cancer.
- Forty percent of persons aged 50 and older reported ever having a sigmoidoscopy or colonoscopy to check for signs of cancer or other health problems.

## **Prostate Cancer Screening**

- Seven out of 10 men aged 50 or older (71 percent) reported ever having a Prostate-Specific Antigen (PSA) test to check for prostate cancer. One-half of all males in this age group (50 percent) had this test in the last 12 months.
- A similar proportion of men aged 50 or older (70 percent) said they ever had a digital rectal examination. Fewer than one-half of all men in this age group (45 percent) reported having this exam in the past year.
- Among men aged 40 and older, three percent indicated they had ever been told by a health professional that they had prostate cancer. Thirteen percent of men in this age bracket said they had a father, brother, son, or grandfather who had the disease.

## **Women's Health**

- Three-fourths of all women aged 40 and older (75 percent) had a mammogram within the past two years.
- This rate has increased considerably since 1989 when only 43 percent reported having this screening in the two years prior to the survey.
- The majority of women aged 18 and older who participated in the 2002 BRFSS (82 percent) reported that they had a Pap test in the last three years.

## **Family Planning**

- Altogether, 57 percent of respondents who were asked questions about birth control (i.e., women aged 18 to 44 who were not pregnant and men aged 18 to 59) said they (or their partner) were currently using a form of birth control.
- Nine percent were not using birth control and were at risk for unintended pregnancy.

## **HIV/AIDS**

- The majority of BRFSS respondents aged 18 to 64 (85 percent) said it is “very important” that people learn their HIV status by getting tested.
- Despite high scores on the importance of HIV testing, slightly more than one-third (35 percent) of all respondents aged 18 to 64 years said they had ever been tested for HIV.
- Only 10 percent of respondents in this age group stated that, in the past 12 months, a doctor, nurse, or other health professional had talked to them about preventing sexually transmitted diseases (other than HIV) through condom use.



## **Immunizations**

- In 2001-2003, 71 percent of Nebraskans aged 65 and older reported having a flu shot within the last 12 months.
- About 6 of every 10 respondents aged 65 and older indicated they had ever had a vaccination for pneumonia (62 percent).

## **Oral Health**

- Nearly three-fourths of the adults surveyed in the 2001-2003 BRFSS (74 percent) said they had visited the dentist within the past year.
- More than one-half of Nebraska adults (56 percent) reported that they had lost no teeth due to tooth decay or gum disease. However, nine percent had lost six or more (but not all) teeth and eight percent had at some time had all their teeth extracted.
- More than three-fourths of respondents who had ever been to the dentist and who had not had all their teeth removed (77 percent) said they had their teeth cleaned within the past year.
- In 2001, 54 percent of adults reported that they have some kind of dental insurance.
- Adults without dental insurance were less likely to have visited the dentist within the past year (66 percent), compared to adults who have this coverage (81 percent). They were also more likely to say it had been more than 5 years since they went to the dentist or had never gone (16 percent vs. 6 percent for those with insurance).
- Tooth loss was also much more common among adults who had no dental insurance. Nearly 4 of every 10 adults without coverage (39 percent) indicated they had lost six or more permanent teeth to decay or gum disease. Only 15 percent of respondents who had insurance said they had lost this many teeth.

## **ESTIMATED NUMBER OF PEOPLE AT RISK**

The 2001-2003 Nebraska Behavioral Risk Factor Surveillance System shows that a substantial portion of the adult population of the state is at risk for one or more of the factors studied. Table 2 presents estimates of the number of persons aged 18 and older in Nebraska (based on 2003 U.S. Census figures) who are at risk due to individual factors.

For some behaviors where certain age groups are most affected (such as mammograms, HIV testing, or flu shots), appropriate population subgroups have been used to estimate the number of persons at risk. Relevant age groups are noted in Table 2.

**TABLE 1**  
**Comparison of Prevalence**  
**Selected Behavioral Risk Factors and Preventive Health Measures**  
**Nebraska vs. United States**  
**2001-2003**

	Nebraska %	U.S. %
<b>Access to Health Care</b>		
No health insurance (adults aged 18 and older) (2001 - 2002)	13	14
<b>Health Status</b>		
Reported general health to be "fair" or "poor"	13	14
Ever told by health professional that they have:		
--diabetes	6	7
--asthma (current prevalence)	7	8
--high blood pressure (2001 + 2003)	23	25
--high blood cholesterol (2001 + 2003)	29	32
Activities limited by physical, mental, or emotional problems (2003 only)	17	18
<b>Risk Factors</b>		
Cigarette smoking	21	23
Obesity (Body Mass Index = 30 +)	23	22
Overweight but not obese (Body Mass Index = 25.0 - 29.9)	37	37
No leisure-time physical activity	25	24
Binge drinking (five or more alcoholic drinks on at least 1 occasion in the past 30 days) (2003 only)	18	16
Heavy drinking (60 or more alcoholic drinks in the past 30 days) (2003 only)	5	6
<b>Good Health Habits</b>		
Always use seat belt when driving or riding in motor vehicle (2002 only)	69	77
Consume fruits/vegetables at least five times per day (2002-2003 only)	18	23
<b>Preventive Measures</b>		
Ever had sigmoidoscopy or colonoscopy--adults aged 50 and older (2001-2002)	40	47
Ever had Pap test--women aged 18 and older (2002 only)	94	95
Blood cholesterol level checked in past five years (2001 + 2003)	66	73
Flu shot in past 12 months (adults aged 65 and older)	71	68
Ever had pneumonia vaccination (adults aged 65 and older)	62	63
Visited dentist in past 12 months (2002 only)	73	69
Had teeth cleaned by dental health professional in past 12 months (2002 only)	76	69

<b>TABLE 2</b> <b>Percentage and Number of Persons at Risk Due to Specific Factors</b> <b>Nebraska Residents Aged 18 and Older</b> <b>2001-2003</b>		
<b>Risk Factor</b>	<b>Estimated % at Risk</b>	<b>Estimated # at Risk*</b>
General health is fair/poor	13	168,938
Activities limited by physical, mental, or emotional problems	15	194,929
No health insurance (aged 18 - 64)	15	160,134
No personal health care provider	16	207,924
Ever had a heart attack	4	51,981
Ever had a stroke	2	25,991
Told by a doctor they have diabetes	6	77,972
Currently have asthma	7	90,967
Do not always wear seatbelt when driving or riding in a motor vehicle	31	402,853
Alcohol misuse		
--Heavy drinking	5	64,976
--Binge drinking	17	220,919
--Drinking and driving	5	64,976
Cigarette smoking	21	272,900
Obesity (BMI = 30+)	23	298,891
Overweight but not obese (BMI = 25.0 - 29.9)	37	480,824
Consume fruits/vegetables less than five times per day	82	1,065,611
No leisure-time physical activity	25	324,881
Ever told blood pressure is high	23	298,891
Not had cholesterol level checked in past five years	34	441,839
Not had blood stool test to screen for colorectal cancer in past two years (aged 50+)	68	344,413
Not had mammogram in past year (women aged 40 and older)	40	162,463
Never been tested for HIV (aged 18 - 64)	65	693,916
No flu shot in past 12 months (aged 65 and older)	29	67,269
Have not visited dentist in past 12 months	26	337,877
*Estimated number at risk = % at risk x Nebraska population aged 18 and older (unless otherwise noted). Population data: 2003 U.S. Census estimates.		

# INTRODUCTION

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The Nebraska Behavioral Risk Factor Surveillance System (BRFSS) has been conducting surveys annually since 1986 for the purpose of collecting data on the prevalence of major risk factors among adults residing in the state.

This series of surveys is based on a research design developed by the Centers for Disease Control and Prevention (CDC). It is used in all 50 states, the District of Columbia, and three U.S. territories. Questions are standardized to ensure comparability of data with other states and to allow determination of trends over time.

Information gathered in these studies can be used to target health education and risk reduction activities in order to lower rates of premature death and disability.

The current report presents results of interviews conducted in 2001, 2002, and 2003. It addresses major health risk factors, such as smoking and physical inactivity; preventive health behaviors, such as immunizations and cancer screening; measures of health status, such as prevalence of diabetes or disabilities; and health care issues such as health insurance coverage.

For the first time in Nebraska, this report includes data for racial and ethnic minorities. It also presents the 95 percent confidence intervals associated with most reported percentages, to enable the reader to assess statistical significance of findings. This report also summarizes trends in prevalence over time when available. It compares Nebraska BRFSS data with national averages and results in surrounding states. Nebraska Healthy People 2010 objectives that can be measured using BRFSS data have also been included.

# METHODOLOGY

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Telephone surveys with 13,061 randomly selected Nebraska residents aged 18 years or older were conducted by the Nebraska Health and Human Services System during 2001, 2002, and 2003.

To increase the number of racial and ethnic minority respondents, a separate “Minority Behavioral Risk Factor Survey” was also conducted in each of the three years (2001, 2002, and 2003). Racial and ethnic minority respondents are those who reported their race as African American, Asian American, Native American, or Other and/or reported that they were of Hispanic origin. The questionnaires used were identical to the main survey and the sampling methods were the same, except that the respondents to the Minority BRFS were selected only from census tracts with large minority populations. A total of 4,941 Nebraskans aged 18 and older comprise the racial and/or ethnic minority sample. (This sample includes racial and ethnic minority respondents from the “main” study as well as those surveyed in the minority study).

As in the studies conducted in 1993 through 2000, core questions were used by all states. However, some of these questions were not asked every year so the sample size for those questions would be smaller than for questions asked annually. In addition to core questions, a variety of optional modules containing questions that were developed cooperatively between CDC and the states were available. Several of these modules were selected and used in the 2001-2003 Nebraska BRFS.

The demographic distribution of survey respondents is presented in Table 3. Data on sex, age, rural vs. urban residence, education, household income, and race/ethnic origin were used to determine whether the prevalence of behavioral risk factors could be linked to or associated with these demographic variables. However, it is necessary to keep in mind that, in many instances, multiple factors may be operating to influence prevalence.

Prevalence estimates are based on weighted data rather than raw numbers of responses to a question. The weights adjust for over - or under - sampling age - gender groups.

Most tables in this report show the 95 percent confidence intervals associated with reported percentages. Confidence intervals are a method of measuring sampling error and defining the range where the “true” percentage would be found 95 percent of the time. Larger sample size is related to smaller confidence intervals and greater reliability of data. Confidence intervals are also useful in statistical significance testing. Differences in prevalence estimates (percentages) for two subgroups of the population can be determined to be statistically significant if their confidence intervals do not overlap. Confidence intervals were calculated using SUDAAN, a software package that estimates sample variances for complex sample designs.

Percentages were not calculated for subgroups of the population when their sample size was less than 50. Calculations based on such a small sample size are considered to be unreliable. Unless otherwise noted, responses of “Don’t know/Not sure” and “Refused” were removed from the denominators when calculating prevalence percentages in this report.

<b>TABLE 3</b> <b>Demographic Distribution of Respondents</b> <b>2001-2003 Nebraska Behavioral Risk Factor Surveillance System</b>				
	2001 - 2003 BRFSS Survey Sample		Weighted to 2002 Population	
	Number	Percent	Number	Percent
<b>All Adults Aged 18 and Older</b>	13,061	100	1,274,927	100
<b>Gender</b>				
Male	5,027	38	617,291	48
Female	8,034	62	657,656	52
<b>Age</b>				
18 - 29	1,999	15	289,332	23
30 - 44	3,599	28	355,471	28
45 - 64	4,139	32	384,559	30
65 +	3,239	25	237,764	19
Unknown/Refused	85	1	7,820	1
<b>Education</b>				
Less than High School	1,124	9	111,508	9
High School Graduate/GED	4,468	34	440,286	35
Some College/Technical School	3,783	29	372,898	29
College Graduate	3,645	28	346,425	27
Unknown/Refused	41	0	3,829	0
<b>Income</b>				
Under \$15,000	1,078	8	93,100	7
\$15,000 - \$24,999	2,393	18	217,076	17
\$25,000 - \$49,999	4,141	32	411,959	32
\$50,000 +	3,412	26	349,201	27
Unknown/Refused	2,037	16	203,611	16
<b>Race</b>				
White	12,045	92	1,158,484	91
African American	341	3	32,029	3
Asian American	107	1	13,332	1
Native American	75	1	8,018	1
Other Race	405	3	53,301	4
Unknown/Refused	88	1	9,784	1
<b>Place of Residence*</b>				
Urban	5,794	44	585,294	46
Rural	7,226	55	685,504	54
Unknown/Refused	41	0	4,149	0
*Urban residents are defined as persons living in Douglas, Sarpy or Lancaster Counties. All other counties are considered rural.				

2001-2003 Survey Sample	
<b>Minority BRFSS</b>	4,941
<b>Race</b>	
White	543
African American	1,935
Asian American	284
Native American	232
Other Race	1,760
Unknown/Refused	187
<b>Ethnicity</b>	
Hispanic	2,328
Non-Hispanic	2,543
Unknown/Refused	70

# HEALTH STATUS

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Health-related quality of life measures have been included in the Nebraska BRFSS since January 1993. These questions seek to determine how adults perceive their own health and how well they function physically, psychologically, and socially during their usual daily activities. These indicators are important because they can assess dysfunction and disability that are not measured by standard morbidity and mortality data.

## **GENERAL HEALTH**

### **Definition**

At Risk: Respondents who answered “Fair” or “Poor” to the question, “Would you say that in general your health is: Excellent? Very good? Good? Fair? Or Poor?”

### **Current Prevalence**

When asked to rate their health in general, the majority of adults said it was “excellent” (23 percent) or “very good” (36 percent) in 2001-2003. An additional 28 percent considered their health to be “good.” However, 13 percent of respondents rated it as “fair” or “poor” (Figure 1).

### **Trend over Time**

The proportion of respondents categorizing their health as fair or poor generally held steady at 11 to 12 percent from 1993 through 2000 (Figure 2). Since then, the proportion of adults with fair or poor health has edged upward to about 13 percent.

### **Who’s at Risk in Nebraska?**

Men (13 percent) and women (14 percent) were about equally likely to report being in fair or poor health (Table 4).

The proportion of adults with fair or poor health increased significantly with advancing age (Figure 3). More than one-fourth of adults aged 65 and older (28 percent) and 15 percent of those aged 45 to 64 indicated they had fair or poor health, compared to only 8 percent of adults aged 30 to 44 and 5 percent of those aged 18 to 29.

Adults with a lower level of education have significantly higher rates of fair or poor health than adults with higher levels of education. Thirty percent of adults with less than a high school education reported being in fair or poor health (Table 4), compared to 16 percent of high school graduates. Only ten percent of persons with technical training or some college and eight percent of college graduates rated their health this way.

A similar pattern is evident by household income of respondents. Persons with lower annual incomes were significantly more likely than those with higher incomes to indicate their health was fair or poor. Nearly three of every ten respondents with incomes below \$15,000 per year (29 percent) indicated they had fair or poor health, as did 22 percent of those with incomes between \$15,000 and \$25,000. A significantly smaller percentage (10 percent) of adults in the middle income range (\$25,000-\$49,999) reported fair or poor health. Among those with annual incomes of \$50,000 or above, only five to six percent said their health was fair or poor.

Significant differences in self-reported health status were also identified by race and ethnicity of respondents (Figure 4). Hispanic Nebraskans (25 percent) and African Americans (23 percent) were significantly more likely than Asian American (13 percent) or white (13 percent) Nebraskans to report their health was fair or poor. Native Americans (24 percent) were significantly more likely than white respondents to have fair or poor health.

Rural Nebraskans (15 percent) were significantly more likely than urban residents (11 percent) to state that their health was fair or poor.

### **Nebraska and the Nation**

Nebraska, with 13 percent, ranked just below the 2001-2003 national median of 14 percent in proportion of adults who perceive their general health to fair or poor (Figure 5). Three of the six surrounding states (Colorado, Kansas, and South Dakota) also reported 13 percent. In Missouri, 17 percent of adults rated their health fair or poor.

## **PHYSICAL HEALTH**

### **Definition**

Average (mean) Number of Days Physical Health Not Good: Based on responses to the question, “Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?”

### **Current Status**

In 2001 and 2003 combined, adults in Nebraska reported an average of 2.9 days out of the past 30 days when they felt their physical health was not good.

### **Trend over Time**

The average number of days when physical health was not good remained at about the same level as it has since 1995-1996 (Figure 6).

### **Who’s at Risk in Nebraska?**

On average, females (3.1 days) reported a slightly greater number of days when their physical health was not good than did males (2.6 days) (Table 4). However, the difference was not significant.

The average number of days when physical health was not good increased with increasing age of respondent. Elderly people aged 65 and older reported significantly more days in the past month when their health was not good (4.6 days) than people in each of the younger age groups. In fact, differences among all four of the age groups were significant. That is, persons aged 45 to 64 indicated significantly more days (3.2) than both younger groups and 30- to 44-year-olds (2.3) reported significantly more days when their physical health was not good than 18- to 29-year-olds (1.7).

Persons with less than a high school education reported significantly more days when their physical health was not good (4.2 days in the past month) than persons with some college (2.6) or those who had graduated from college (2.2). High school graduates (3.2 days) also reported significantly more days when health was not good than college graduates.

Significant differences were also apparent by annual household income of respondents. Persons with incomes below \$15,000 (5.3 days) and those earning \$15,000 to \$24,999 per year (4.3 days) had significantly more days when their physical health was not good than persons with incomes of \$25,000 to \$49,999 (2.4) or \$50,000 to \$74,999 (2.1) per year. Persons in the highest income bracket (\$75,000 and over) averaged significantly fewer days (1.3) than persons in each of the lower income brackets.

African American respondents reported significantly more days when physical health was not good (3.8 days) than did white Nebraskans (2.8), Asian Americans (2.1), and Hispanic Nebraskans (2.5) (Figure 7).

Differences in average number of days when physical health was not good were not significant between rural (3.0) and urban (2.7) Nebraskans.



## **MENTAL HEALTH**

### **Definition**

Average (mean) Number of Days Mental Health Not Good: Based on responses to the question, “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?”

### **Current Status**

In 2001 and 2003 combined, adults aged 18 and older in Nebraska reported an average of 2.6 days in the 30 days prior to the survey when their mental health was not good.

### **Trend over Time**

Average number of days when mental health was not good has remained nearly steady from 1997-1998 through the present (Figure 8).

### **Who’s at Risk in Nebraska?**

Women reported a significantly greater number of days in the past month (3.1 days) when their mental health was not good than did men (2.2 days) (Table 4).

In contrast to physical health where the opposite was true, respondents aged 65 and older tended to report fewer days when their mental health was not good (1.8 days) than younger respondents. In fact, they averaged significantly fewer days than persons aged 30 to 64 (3.0 days).

Persons with annual incomes under \$25,000 reported significantly more days when their mental health was not good than persons with incomes of \$50,000 or more.

Asian Americans reported significantly fewer days when mental health was not good (1.4 days) than whites (2.7), Hispanic Americans (2.8), or African Americans (3.1) (Figure 9).

Although average number of days when mental health was not good varied somewhat by educational level and by place of residence (urban vs. rural), differences were not significant.

## **ACTIVITY LIMITATION**

### **Definition**

Average (mean) Number of Days Activities Limited: Based on responses to the question, “During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?”

### **Current Status**

BRFSS respondents who reported in previous questions that either their physical health or mental health or both were “not good” for one or more days in the past month were asked for how many days their activities were limited by these conditions. In 2001 and 2003 combined, adults aged 18 and older reported an average of 3.6 days in the past month when poor health kept them from participating in their usual activities (Table 4). If all survey respondents are included, the overall average falls to 1.6 days per person.

### **Trend over Time**

Average number of days with limited activity were about the same as in the two previous studies. In 1999-2000, the average was 3.8 days. In 1997-1998, the mean number of days was 3.6—the same as in the current study.

## Who's at Risk in Nebraska?

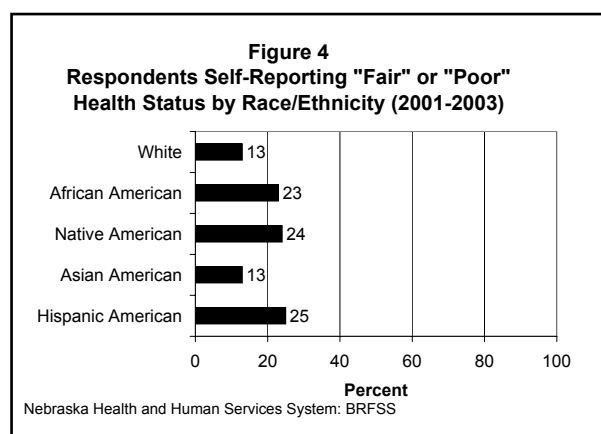
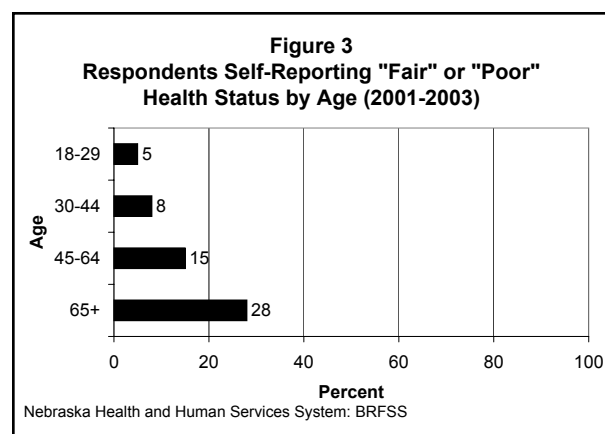
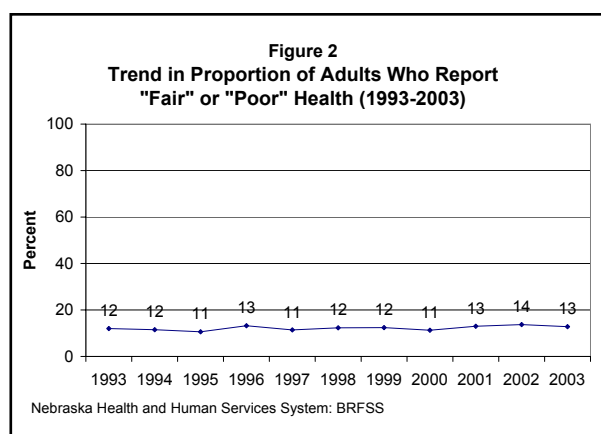
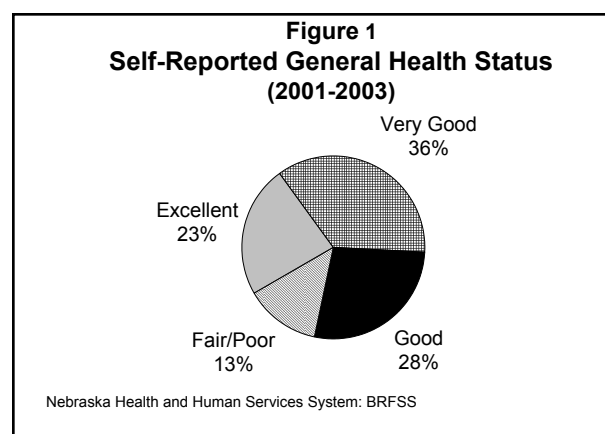
On average, older respondents reported significantly more days when poor physical or mental health kept them from doing their usual activities. Respondents aged 65 and older had 6.8 days of limited activities in the past month—significantly more than the number reported by younger respondents. Respondents aged 45 to 64 (4.6 days) also noted significantly more of these days than 18- to 29-year-olds (1.9 days) or 30- to 44-year-olds (2.6 days).

Persons with a high school education (4.7 days) and those who did not complete high school (6.3) reported significantly more limited-activity days than persons who had some college or technical training (2.6) or persons who had graduated from college (2.4).

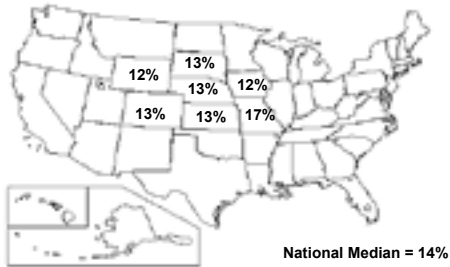
The average number of days when activities were limited by poor health was significantly higher for persons whose household incomes were under \$25,000 per year, compared to persons earning \$25,000 or more annually.

Native Americans reported a significantly greater number of limited-activity days (9.4) than Hispanic (3.7) or white (3.5) Nebraskans. African Americans also reported a significantly greater number of these days in the past month (5.2) than whites.

Differences in average number of limited activity days by gender and place of residence were not statistically significant.

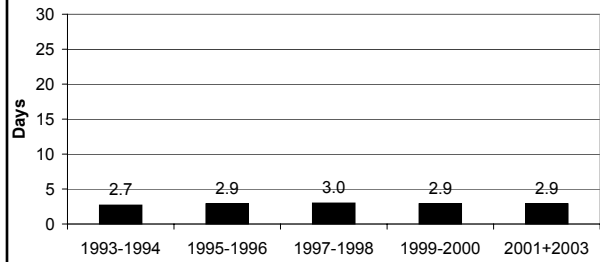


**Figure 5**  
**Respondents Who Self-Reported Their Health Status**  
**as "Fair" or "Poor" (2001-2003)**



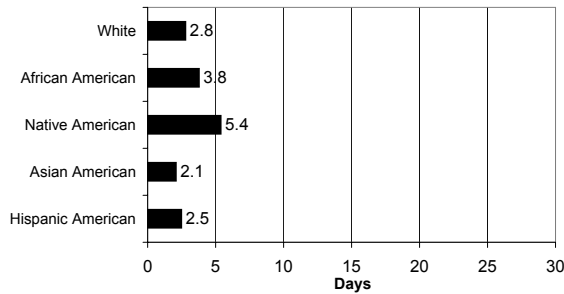
Nebraska Health and Human Services System: BRFSS

**Figure 6**  
**Mean Number of Days During Past 30 Days**  
**When Adults' Physical Health Was "Not Good"**  
**(1993-2003)**



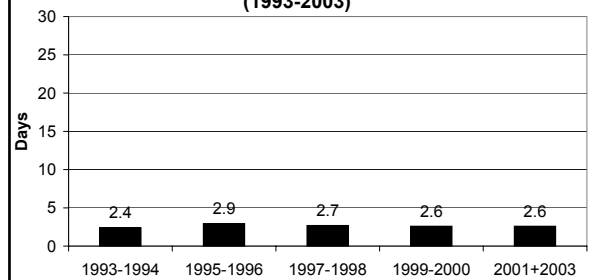
Nebraska Health and Human Services System: BRFSS

**Figure 7**  
**Mean Number of Days During Past 30 Days**  
**When Adults' Physical Health Was "Not Good"**  
**By Race/Ethnicity (2001 + 2003)**



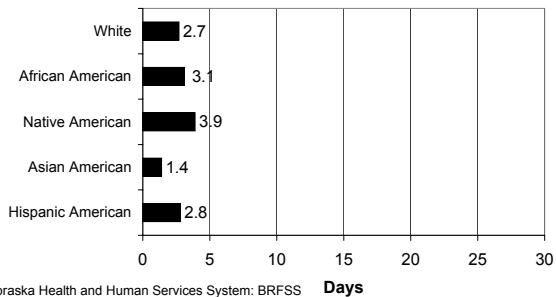
Nebraska Health and Human Services System: BRFSS

**Figure 8**  
**Mean Number of Days During Past 30 Days**  
**When Adults' Mental Health Was "Not Good"**  
**(1993-2003)**



Nebraska Health and Human Services System: BRFSS

**Figure 9**  
**Mean Number of Days During Past 30 Days**  
**When Adults' Mental Health Was "Not Good"**  
**By Race/Ethnicity (2001 + 2003)**



Nebraska Health and Human Services System: BRFSS

**TABLE 4**  
**Self-Reported Health Status and Activity Limitations**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAN)**

	Fair or Poor Health				Mean Number of Days When Physical Health Was Not Good (2001 + 2003)			Mean Number of Days When Mental Health Was Not Good (2001 + 2003)			Mean Number of Days Activities Were Limited by Poor Physical or Mental Health (2001 + 2003)		
	Total Number	Number	Percent	Confidence Interval	Total Number	Mean # Days	Confidence Interval	Total Number	Mean # Days	Confidence Interval	Total Number	Mean # Days	Confidence Interval
All Adults	13,032	1,878	13	12.5-13.8	8,515	2.9	2.7-3.0	8,538	2.6	2.5-2.8	3,761	3.6	3.3-3.9
Gender:													
Male	5,018	688	13	11.6-13.7	3,329	2.6	2.3-2.9	3,327	2.2	2.0-2.4	1,259	3.8	3.3-4.4
Female	8,014	1,190	14	12.8-14.5	5,186	3.1	2.9-3.3	5,211	3.1	2.8-3.3	2,502	3.5	3.1-3.8
Age:													
18-29	1,998	91	5	3.4-5.7	1,365	1.7	1.4-1.9	1,365	2.4	2.1-2.8	672	1.9	1.4-2.4
30-44	3,596	294	8	7.3-9.5	2,343	2.3	2.0-2.6	2,340	3.0	2.6-3.3	1,153	2.6	2.2-3.1
45-64	4,133	595	15	13.7-16.2	2,756	3.2	2.9-3.6	2,746	3.0	2.7-3.4	1,229	4.6	4.0-5.2
65 +	3,222	885	28	26.0-29.6	1,995	4.6	4.1-5.1	2,030	1.8	1.5-2.1	689	6.8	5.8-7.7
Education:													
<High School	1,113	368	30	26.7-33.0	749	4.2	3.5-4.9	763	2.8	2.2-3.3	301	6.3	5.0-7.6
High School	4,462	799	16	14.4-16.8	2,938	3.2	2.9-3.5	2,948	3.0	2.6-3.3	1,257	4.7	4.1-5.4
Some College	3,776	417	10	9.2-11.4	2,444	2.6	2.4-2.9	2,436	2.6	2.3-2.9	1,122	2.6	2.2-3.1
College Degree	3,642	280	8	6.5-8.7	2,357	2.2	1.9-2.4	2,362	2.2	1.9-2.5	1,073	2.4	2.0-2.8
Income:													
<\$15,000	1,071	356	29	25.3-32.0	693	5.3	4.4-6.2	698	4.3	3.5-5.1	383	7.0	5.6-8.5
\$15,000 - \$24,999	2,387	549	22	20.1-24.3	1,486	4.3	3.8-4.9	1,490	3.3	2.9-3.8	716	4.8	3.9-5.6
\$25,000 - \$49,999	4,137	418	10	8.8-10.8	2,775	2.4	2.1-2.6	2,779	2.6	2.3-2.9	1,215	2.8	2.4-3.2
\$50,000 - \$74,999	1,808	98	6	4.3-6.7	1,162	2.1	1.7-2.5	1,159	2.3	1.8-2.7	531	2.2	1.6-2.8
\$75,000 +	1,601	71	5	3.5-6.3	1,063	1.3	1.0-1.6	1,067	1.7	1.3-2.0	419	1.8	1.3-2.3
Race:													
White	12,023	1,676	13	11.9-13.2	7,859	2.8	2.7-3.0	7,880	2.7	2.5-2.8	3,486	3.5	3.2-3.8
African American	1,925	498	23	20.4-25.2	1,374	3.8	3.3-4.4	1,377	3.1	2.6-3.6	661	5.2	4.3-6.1
Asian American	280	35	13	8.3-18.2	199	2.1	1.1-3.1	199	1.4	0.7-2.2	71	3.5	1.3-5.8
Native American	231	61	24	15.8-31.6	163	5.4	2.8-7.9	163	3.9	2.2-5.7	94	9.4	5.4-13.4
Hispanic Origin	2,319	610	25	22.5-27.2	1,674	2.5	2.1-3.1	1,672	2.8	2.6-3.2	635	3.7	2.8-4.6
Place of Residence:													
Rural	7,249	1,198	15	14.0-15.8	4,704	3.0	2.8-3.2	4,722	2.6	2.4-2.8	1,975	4.0	3.5-4.4
Urban	5,783	680	11	10.1-12.1	3,811	2.7	2.4-2.9	3,816	2.7	2.4-2.9	1,786	3.2	2.8-3.6

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

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# DISABILITY AND QUALITY OF LIFE

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Disability may result from a wide range of conditions. People with disabilities include persons who have physical, cognitive, or sensory impairments that are either present at birth or acquired (resulting from an illness or injury that has long-term consequences).

Children and adults with disabilities and their families face special challenges related to maintaining health, productivity, independence, and quality of life. Persons with disabilities and their families must find ways to adapt and learn to live with the ongoing disability. They may require the use of home- or community-based services to enable them to live independently and face issues of availability and quality of needed services. Many persons with disabilities must cope, often on a daily basis, with the social stigma of disability and the potential discrimination that accompanies it.

Although multiple definitions of disability result in varying estimates of prevalence, nearly one-fifth of the U.S. population (more than 54 million Americans) are thought to experience some limitation in their activities as a result of chronic health problems.

Total costs associated with disabilities are estimated to be more than \$300 billion per year in the United States, with costs about evenly divided between costs of direct medical care and costs of lost productivity.

## **Prevalence of Disability**

### **Activity Limitation**

#### **Definition**

Have an activity limitation: “Yes” to the question, “Are you limited in any way in any activities because of physical, mental, or emotional problems?”

#### **Current Prevalence of Activity Limitations**

Fifteen percent of adults responding to the 2001-2003 Nebraska BRFSS stated that they experienced limitation in one or more activities due to physical, mental, or emotional problems (Table 5).

#### **Who Has Activity Limitations?**

Male (14 percent) and female (16 percent) respondents reported similar rates of activity limitation.

Older respondents were significantly more likely than younger ones to say they were limited in any way in any activity due to physical, mental, or emotional problems (Figure 10). More than one-fourth of adults aged 65 and older (26 percent) mentioned activity limitations, compared to 18 percent of those aged 45 to 64. Significantly fewer 30- to 44-year-olds (11 percent) and 18- to 29-year-olds (five percent) said they experienced limitations.

The proportion of persons with less than a high school education who reported activity limitation (22 percent) was significantly greater than the rates for persons with higher levels of education (Figure 11). Sixteen percent of high school graduates and 14 percent of persons with some college or technical training indicated they had limitations. Both of these rates are significantly higher than the rate recorded for college graduates (11 percent).

A similar pattern is evident by household income, with lower-income respondents significantly more likely than higher-income individuals to have limitations in activities due to these problems. Rates ranged from 30 percent for persons earning less than \$15,000 per year to less than 10 percent for those with annual incomes of \$50,000 or more (Table 5).

The rate of reported activity limitations (30 percent) was significantly higher for Native Americans than for each of the other racial or ethnic groups studied (Figure 12). African Americans (18 percent) also

experienced these limitations at a significantly higher rate than whites (15 percent), Hispanic Nebraskans (9 percent) and Asian Americans (6 percent). In addition, the rate for whites was significantly higher than rates for Hispanic and Asian Americans.

Prevalence of activity limitations was similar for urban (14 percent) and rural (15 percent) residents.

### **Nebraska and the Nation**

Compared to the nation (18 percent), Nebraska (17 percent) reported a slightly lower percentage of persons with limited activity due to physical, mental, or emotional problems in 2003 (Figure 13). Of the surrounding states, only Kansas reported a lower rate (16 percent) and Iowa (17 percent) matched the Nebraska rate. In three states—Missouri, South Dakota, and Wyoming, 19 percent of adults indicated activity limitations due to these problems.

## **Health Problems Requiring Use of Special Equipment**

### **Definition**

Require special equipment: “Yes” to the question, “Do you now have any health problems that require you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?”

### **Current Prevalence**

Five percent of adults participating in the 2001-2003 BRFSS said they now have a health problem that requires them to use special equipment (Table 5).

### **Who Has Health Problems Requiring Special Equipment?**

The proportion of women who needed to use special equipment because of a health problem (six percent) was significantly greater than the proportion of men who did (five percent).

Younger respondents aged 18 to 44 years (1 to 2 percent) were significantly less likely than respondents aged 45 to 64 (5 percent) or those aged 65 and older (16 percent) to say they currently had a health problem requiring use of special equipment. Persons in the 45-to-64 age group were also significantly less likely than persons aged 65 and over to have this kind of limitation.

Respondents with less than a high school education (nine percent) were significantly more likely than respondents at each higher level of education to report having this special requirement. High school graduates (six percent) were also significantly more likely than college graduates (four percent) to have this kind of health problem. Among respondents with some college or technical training, five percent gave this response.

A similar pattern was evident by household income of respondents. The proportion of persons with a health problem requiring use of special equipment was significantly higher among those with lower incomes. Prevalence ranged from a high of 14 percent among respondents earning less than \$15,000 per year to 2 percent among those with annual incomes of \$50,000 or more.

African Americans and Native Americans (11 percent each) were significantly more likely than white (5 percent) or Hispanic Americans (2 percent) to report currently having a health problem that required them to use special equipment. The difference in prevalence between white and Hispanic Nebraskans was also significant.

### **Nebraska and the Nation**

In 2003, the proportion of Nebraska adults who had health problems requiring use of special equipment (six percent) matched the national median (Figure 14). There was little variation in prevalence of these health problems among Nebraska and the six surrounding states. Colorado, Iowa, and Kansas all reported five percent, while the rate was highest in Missouri (seven percent).

## **Nature of Major Impairment or Health Problem**

In the 2001-2002 Nebraska BRFSS, respondents who stated they had a physical, mental, or emotional problem that limits their activities and/or who stated they use special equipment because of a health problem were asked the nature of their impairment or health problem.

Nearly one-fifth (19 percent) of these respondents cited a back or neck problem and 15 percent mentioned arthritis or rheumatism (Table 6). Twelve percent had problems walking, while seven percent each reported lung/breathing difficulties or heart problems. Six percent said they had fractures or a bone or joint injury. Five percent listed depression, anxiety, or an emotional problem as the health problem limiting their activities or causing them to need special equipment.

## **Length of Time Activities Have Been Limited**

On average, respondents to the 2001-2003 BRFSS said their activities have been limited due to an impairment or health problem for 9.1 years.

No significant differences were found in the average length of time activities were limited by gender, age, education, income, race/ethnic origin, or place of residence of respondents.

## **Help Needed**

Respondents who had a major impairment or health problem were asked, “Because of any impairment or health problem, do you need the help of other persons with your PERSONAL CARE needs, such as eating, bathing, dressing, or getting around the house?” Only one in ten (10 percent) of these respondents stated that they needed help with their personal care needs.

A significantly greater proportion of African American respondents with an impairment or health problem (22 percent) reported needing help with things such as eating, bathing, dressing, or getting around the house, compared to white respondents (10 percent).

Respondents with an impairment or health problem were also asked, “Because of any impairment or health problem, do you need the help of other persons in handling your ROUTINE needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?” More than one-fourth of all respondents with a major impairment or health problem (27 percent) indicated that they needed help with their routine needs.

Women (33 percent) were significantly more likely than men (19 percent) to say they needed help with these activities.

The proportion of African Americans requiring help with routine needs (40 percent) was significantly greater than the proportion of white Nebraskans (26 percent). Among Hispanic Nebraskans, 36 percent reported needing the help of other persons to meet their routine needs.

Although some differences were noted in proportions of respondents needing help with personal and routine care needs by age, education, income, and place of residence, these differences were not significant.

## **Who Provides Help?**

More than one-half of the respondents who stated they need help with personal care (54 percent) said their spouse or partner usually provides this assistance (Table 7). Sixteen percent rely on a paid employee or home health service, while 12 percent receive help from a parent, son or daughter, or son- or daughter-in-law. Seven percent have a friend or neighbor help them with personal care needs like eating, bathing, or dressing. Four percent said they have no one to assist them.

Four out of five respondents who receive assistance with personal care needs (79 percent) said the help they get is “usually adequate.” Fifteen percent rated it “sometimes adequate”, while six percent felt it was “rarely adequate.”

Respondents who require assistance with routine needs such as household chores, shopping, or getting around for other purposes frequently said it was their husband, wife, or partner who provides this help (38 percent) (Table eight). Nearly one-fourth (23 percent) mentioned a parent, child, or son- or daughter-in-law, while 15 percent had a home health service or other paid employee to help with routine needs. Six percent rely on a friend or neighbor and five percent each mentioned “other relatives” or a combination of family, friends and paid help for this kind of assistance. Six percent said there is no one who helps them.

The majority of adults receiving help with routine needs such as chores or shopping (86 percent) state that the assistance they get is “usually adequate”.

### **Activity Limitation or Health Effects**

Respondents to the 2001-2002 Nebraska BRFSS were asked to estimate how many days in the past 30 days they experienced various health effects.

#### **Activity Limitation Due to Pain**

First, they were asked, “During the past 30 days, for about how many days did pain make it hard for you to do your usual activities, such as self-care, work or recreation?”

The average (mean) number of days reported by these respondents was 3.0 days in the past month (Table 9). The average number of days when activities were difficult to perform due to pain increased significantly with advancing age of respondents. Among 18- to 29-year-olds, the average was 1.3 days. Averages were nearly twice as high (2.5 days) for 30- to 44-year-olds and almost three times as high for persons aged 45 to 64 (3.8 days). Persons aged 65 and older reported 4.8 days in the past month when pain made doing their usual activities hard.

Persons with less than a high school education had significantly more days with activities limited by pain (4.7 days) than persons with more education (Figure 15). High school graduates (3.4 days) and persons with some college or technical school (3.0) reported significantly more of these days than college graduates (2.1).

Number of days with activity limitations due to pain was significantly higher for respondents with incomes under \$15,000 per year (5.1 days) or \$15,000 to \$24,999 (4.2 days) than for persons with higher annual incomes. For persons earning \$25,000 or more each year, number of days with limited activity ranged from 1.8 to 2.5 days in the past month.

Native American respondents reported an average of 5.6 days in the past 30 days when pain limited their activity, while African Americans reported an average of 4.1 days (Figure 16). The average for African Americans was significantly higher than that reported for whites (3.0 days), Hispanic Americans (2.3) and Asian Americans (1.4 days). The average for Asian Americans was also significantly lower than rates for all other racial/ethnic groups except Hispanic Nebraskans.

#### **Feeling Sad, Blue or Depressed**

BRFSS respondents were then asked, “During the past 30 days, for about how many days have you felt sad, blue, or depressed?” The average number of days reported was 2.8 in the last month.

Women (3.2 days) averaged a significantly greater number of days when they felt sad or depressed than men (2.4 days).

The number of days when they felt sad or depressed was significantly greater for respondents without a high school education (4.1) than for persons with some college (2.6) or for those with a college degree (2.1). High school graduates reported significantly more of these days (3.3) than college graduates.

Respondents with household incomes below \$15,000 per year (5.1 days) or \$15,000 to \$24,999 (3.8 days) averaged significantly greater numbers of days of sadness or depression than respondents earning \$25,000 to \$49,999 (2.6 days) or those earning \$50,000 or more (1.6-1.7 days). The average



for respondents in the middle income bracket (\$25,000-49,999) was also significantly greater than that reported for respondents with incomes of \$50,000 or higher.

African American respondents reported a significantly greater number of days when they felt sad or depressed (4.3 days), compared to whites (2.8) and Asian Americans (1.5). Asian Americans also averaged a significantly lower number of these days than white or Hispanic Nebraskans (3.6) (Figure 17).

### **Feeling Worried, Tense, or Anxious**

Nebraska adults reported an average of 5.1 days in the past 30 days when they felt “worried, tense, or anxious” (Table 9).

Female respondents indicated a significantly higher number of days when they were worried or tense than males (5.6 vs. 4.6 for men).

Persons aged 65 and older averaged significantly fewer days (3.1 days) when they felt worried or anxious than persons in each of the younger age groups (5.0 to 6.2 days).

Respondents with household incomes under \$15,000 per year reported a significantly greater number of days when they felt worried or anxious (7.3 days) than persons with higher incomes (4.6 to 5.5 days).

No significant differences were found by education, race or place of residence of respondents.

### **Not Enough Rest or Sleep**

Adult Nebraskans averaged 8.7 days in the past month when they felt they “did not get enough rest or sleep”.

Women (9.2 days) had significantly more days in the past 30 days without sufficient rest or sleep compared to men (8.2 days).

Respondents aged 18 to 29 (11.3 days) and 30 to 44 (10.6 days) reported not getting enough rest or sleep in about one-third of the days in the past month (Figure 18). These averages were significantly greater than the number of days without adequate sleep mentioned by older respondents. Persons aged 45 to 64 years also reported significantly more of these days (7.8 days) in the past 30 days than did persons aged 65 or older (4.0 days).

Persons with some college or technical training (9.4 days) and college graduates (8.8 days) averaged significantly more days without enough sleep than persons who had not completed high school (7.1 days). For high school graduates, the average was 8.4 days.

African Americans reported a significantly greater number of days without enough rest (10.5) than whites (8.8), Hispanic Americans (6.9), or Asian Americans (5.8) (Figure 19). The average for whites was also significantly higher than the figures for Hispanic and Asian Americans. For Native Americans, the average was 8.0 days in the last month.

The mean number of days without adequate rest or sleep was significantly higher for urban Nebraskans (9.2) than for rural residents (8.3).

### **Feeling Very Healthy and Full of Energy**

On average, adults had 19.1 days in the past 30 days when they felt “very healthy and full of energy”.

Men (19.7) had significantly more of these days in the past month than women (18.5).

Respondents with higher levels of education averaged more days when they felt very healthy than respondents with less education. The number for college graduates (19.7 days) was significantly higher than that reported for persons with less than a high school education (17.6 days).

A similar pattern is evident by household income of respondents. Persons with annual incomes under \$15,000 indicated significantly fewer days when they felt full of energy (15.6 days) than persons in each of the higher income brackets. The number of “very healthy” days for persons earning \$75,000 or more (20.4 days) was also significantly higher than the number for persons with incomes below \$25,000 per year.

Hispanic Americans reported a significantly greater number of days in the last month when they felt very healthy (20.6) than African Americans (18.7) or whites (18.9) (Figure 20). Asian Americans had 20.9 very healthy days, while Native Americans reported 17.0 of these days.

### Activity Limitation or Health Effects by Disability Status

Persons who are “limited in any way in any activities because of physical, mental, or emotional problems” or “have any health problems that require [them] to use special equipment” are defined here as having a disability. When asked how many days they experienced activity limitation due to pain or other health effects, persons with disabilities reported significantly more days of limited activity or other negative health effects (Figure 21). They also had significantly fewer days when they felt “very healthy and full of energy.”

Persons who have a disability reported nearly nine times as many days in the last month when pain made it difficult for them to do their daily activities (12.4 days) as persons without a disability (1.4 days).

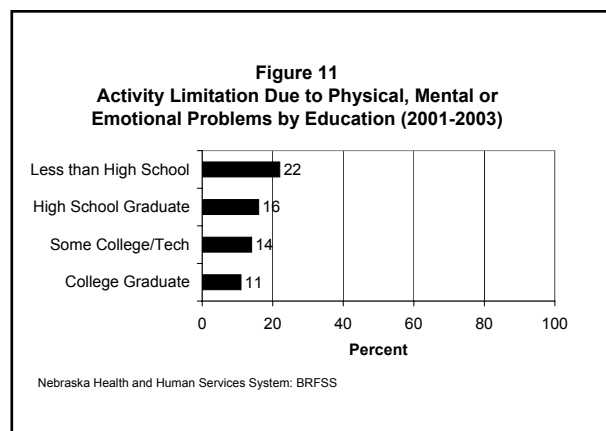
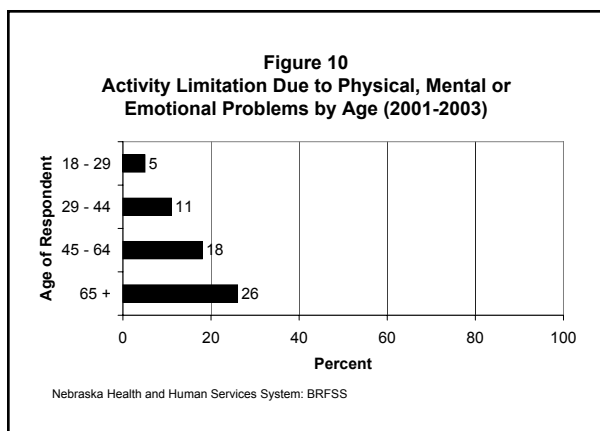
Adults with a disability had more than three times as many days when they felt sad or depressed (6.9 days) as those with no disability (2.1 days).

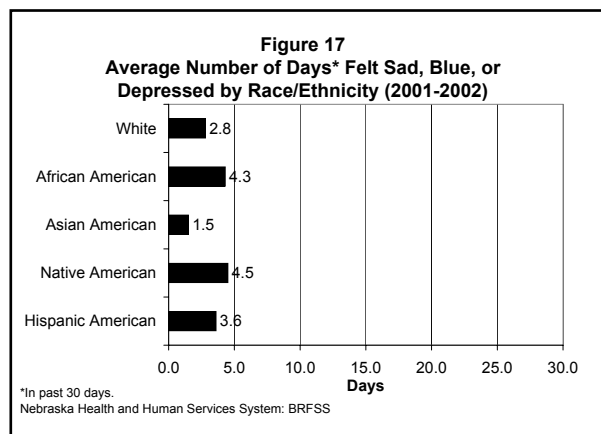
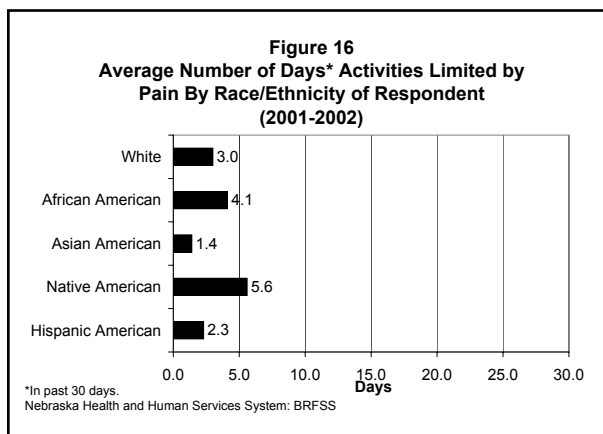
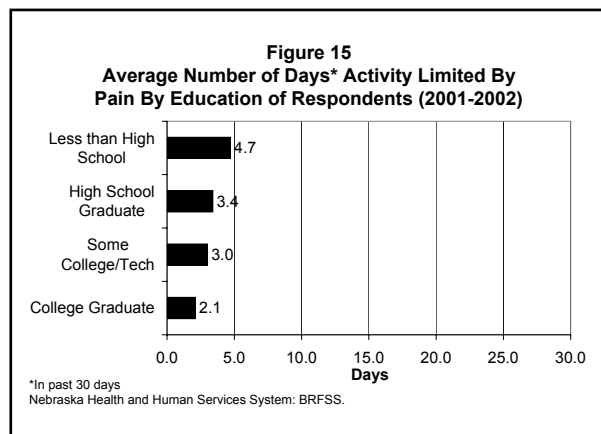
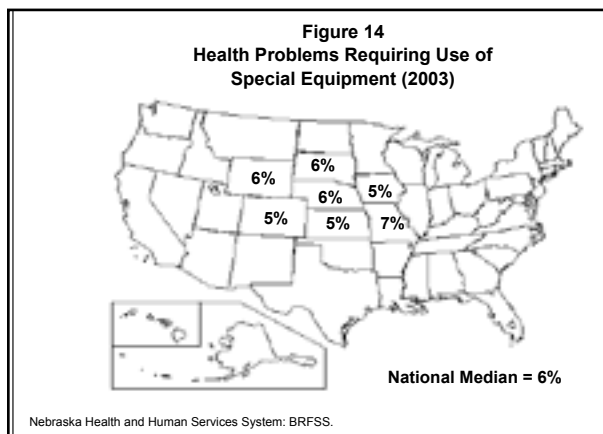
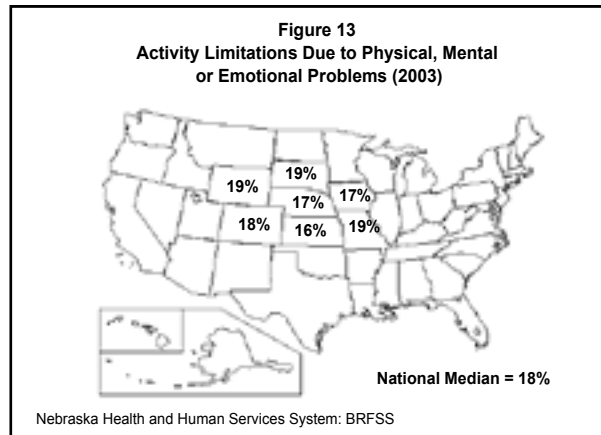
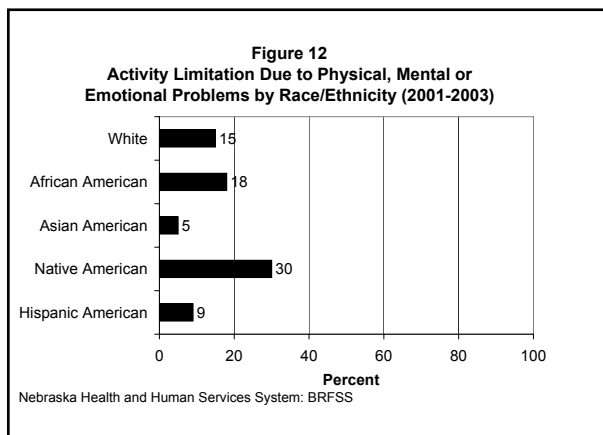
Respondents who have a disability reported nearly twice as many days in the past month when they felt worried or anxious (8.7 vs. 4.5 for persons without a disability).

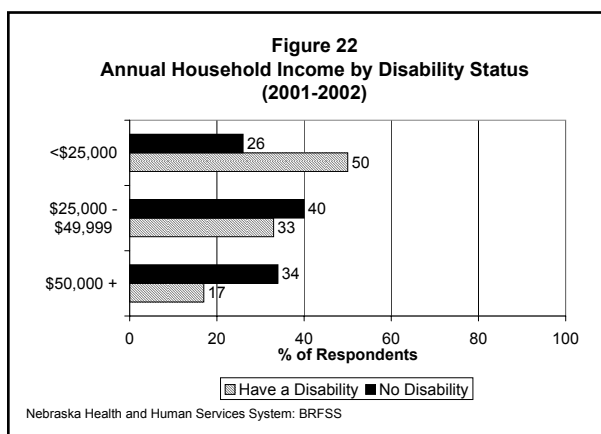
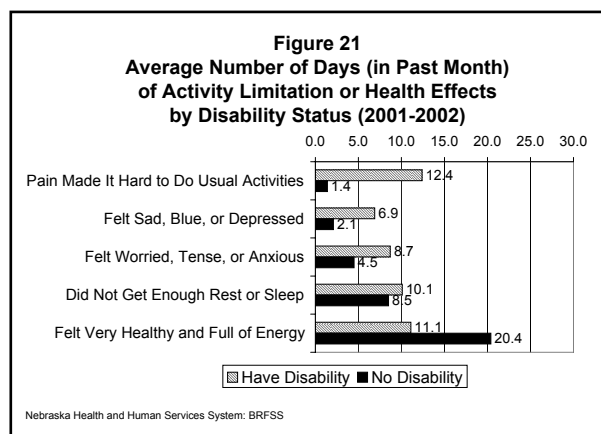
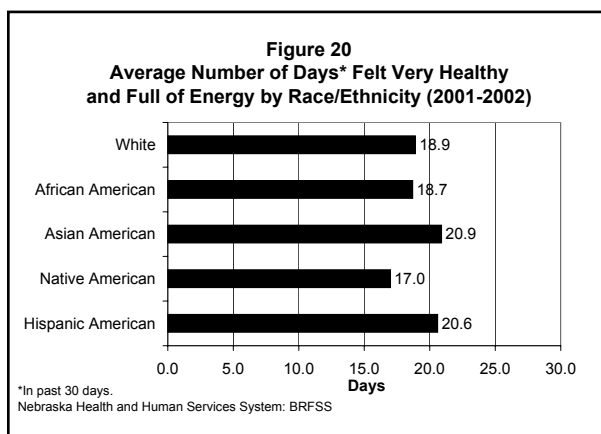
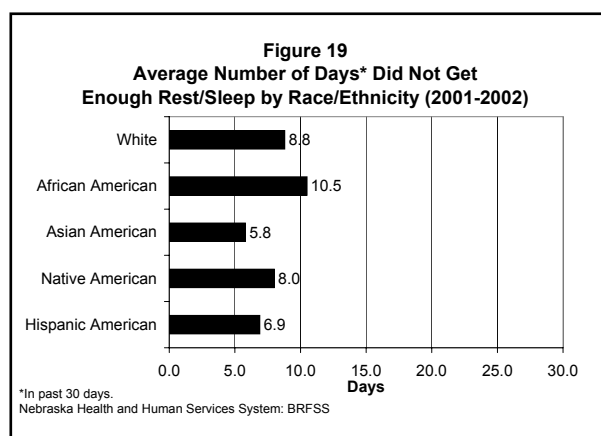
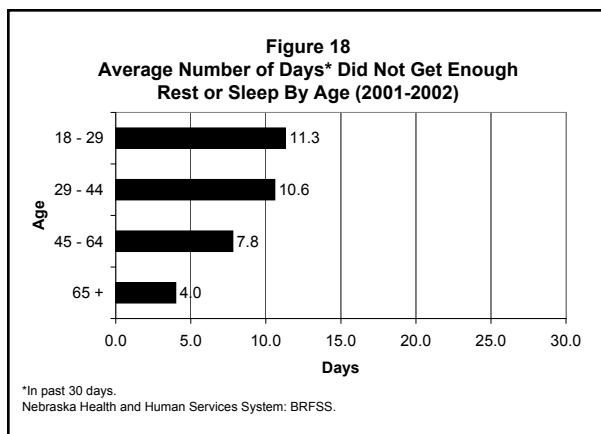
Differences were not as great in number of days in the past month when respondents did not get enough rest or sleep. Persons with a disability indicated they did not get enough rest one-third of the days in the last month (10.1 days), compared to 8.5 days for persons without a disability.

Persons with a disability averaged only 11.1 days in the past 30 days when they felt very healthy and full of energy. Respondents with no disability reported nearly twice as many of these days (20.4 days).

Adults with a disability (50 percent) were also more likely than adults who did not have a disability (26 percent) to have household incomes below \$25,000 per year (Figure 22). In addition, they were less likely to report annual incomes of \$50,000 or more (17 percent vs. 34 percent for adults without disabilities).







<b>TABLE 5</b> <b>DISABILITY AND QUALITY OF LIFE</b> <b>Nebraska Adults, 2001-2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Activities Limited Due to Physical, Mental or Emotional Problems				Health Problem Requiring Use of Special Equipment			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Total Adults</b>	12,794	2,070	15	13.9-15.2	12,812	833	5	4.9-5.7
<b>Gender:</b>								
Male	4,911	733	14	12.5-14.6	4,914	278	5	4.0-5.2
Female	7,883	1,337	16	14.6-16.4	7,898	555	6	5.4-6.6
<b>Age:</b>								
18-29	1,965	100	5	4.1-6.8	1,964	21	1	0.7-1.9
30-44	3,514	386	11	9.5-11.8	3,523	68	2	1.2-2.1
45-64	4,071	766	18	16.7-19.3	4,076	223	5	4.3-5.9
65+	3,179	813	26	24.3-27.8	3,182	517	16	14.6-17.4
<b>Education:</b>								
<High School	1,092	278	22	18.9-24.3	1,095	132	9	7.4-10.7
High School	4,367	763	16	14.4-16.8	4,375	329	6	5.2-6.7
Some College	3,718	581	14	13.0-15.6	3,718	213	5	4.0-5.4
College Degree	3,589	440	11	10.2-12.5	3,594	153	4	3.1-4.6
<b>Income:</b>								
<\$15,000	1,059	363	30	26.5-33.7	1,060	192	14	11.8-16.3
\$15,000 - \$24,999	2,364	511	20	18.2-22.0	2,368	242	8	7.2-9.5
\$25,000 - \$49,999	4,090	552	13	11.6-13.9	4,093	161	4	3.1-4.4
\$50,000 - \$74,999	1,786	162	9	7.4-10.3	1,786	39	2	1.3-2.7
\$75,000 +	1,579	136	8	6.9-9.9	1,578	27	2	1.0-2.6
<b>Race:</b>								
White	11,818	1,936	15	14.1-15.6	11,832	768	5	4.9-5.8
African American	1,877	378	18	15.7-20.1	1,876	222	11	8.8-12.3
Asian American	271	18	6	2.8-9.2	272	2	0	-0.1-0.6
Native American	226	70	30	21.2-38.4	228	32	11	6.2-16.5
Hispanic Origin	2,254	236	9	7.5-10.4	2,258	74	2	1.8-3.1
<b>Place of Residence:</b>								
Rural	7,120	1,226	15	14.5-16.4	7,132	508	6	5.1-6.3
Urban	5,674	844	14	12.6-14.6	5,680	325	5	4.2-5.5
*''Number'' and ''Percent'' exclude missing, don't know, and refused responses.								

<b>TABLE 6</b> <b>Major Impairments or Health Problems Among</b> <b>Respondents with a Physical, Mental, or</b> <b>Emotional Problem That Limits Their Activities</b> <b>and/or Respondents Who Use Special Equipment</b> <b>Due to Health Problem (2001-2002)</b>	
	Percent
Back or Neck Problem	19
Arthritis/Rheumatism	15
Walking Problem	12
Lung or Breathing Problem	7
Heart Problem	7
Fractures, Bone/Joint Injury	6
Depression/Anxiety/Emotional Problem	5
Diabetes	3
Eye/Vision Problem	2
Cancer	2
Stroke Problem	2
Hearing Problem	<1
Hypertension/High Blood Pressure	<1
Other Impairment/Problem	18
TOTAL	100

<b>TABLE 7</b> <b>Who Helps with Personal Care Needs Such as Eating,</b> <b>Bathing, Dressing or Getting Around House -- Among</b> <b>Those Needing Assistance (2001-2002)</b>	
	Percent
Husband/Wife/Partner	54
Paid Employee or Home Health Service	16
Parent/Son/Son-in-Law/Daughter/Daughter-in-Law	12
Friend or Neighbor	7
Combination of Family and/or Friends and/or Paid Help	2
Other Relatives	2
Other	2
No One Helps Me	4
TOTAL	99
<b>Ratings of Assistance Received to Meet</b> <b>Your Personal Care Needs</b>	
	Percent
Usually Adequate	79
Sometimes Adequate	15
Rarely Adequate	6
TOTAL	100

<b>TABLE 8</b> <b>Who Helps with Routine Needs Such as Everyday</b> <b>Household Chores, Shopping, or Getting Around for Other</b> <b>Purposes--Among Those Needing Assistance (2001-2002)</b>	
	Percent
Husband/Wife/Partner	38
Parent/Son/Son-in-Law/Daughter/Daughter-in-Law	23
Paid Employee or Home Health Service	15
Friend or Neighbor	6
Combination of Family and/or Friends and/or Paid Help	5
Other Relatives	5
Unpaid Volunteer	1
Other	1
No One Helps Me	6
TOTAL	100
<b>Ratings of Assistance Received to Meet</b> <b>Your Routine Needs</b>	
	Percent
Usually Adequate	86
Sometimes Adequate	12
Rarely Adequate	2
TOTAL	100

**TABLE 9**  
**DISABILITY AND QUALITY OF LIFE**  
**Nebraska Adults, 2001-2002**  
**(with 95% Confidence Intervals--SUDAN)**

	Average (Mean) Number of Days* Pain Made It Hard to Do Usual Activities			Average (Mean) Number of Days* Felt Sad, Blue or Depressed			Average (Mean) Number of Days* Felt Worried, Tense or Anxious			Average (Mean) Number of Days* Did Not Get Enough Rest or Sleep			Average (Mean) Number of Days* Felt Very Healthy and Full of Energy		
	Total Number	Mean # Days	Confidence Interval	Total Number	Mean # Days	Confidence Interval	Total Number	Mean # Days	Confidence Interval	Total Number	Mean # Days	Confidence Interval	Total Number	Mean # Days	Confidence Interval
<b>Total Adults</b>	7,719	3.0	2.8-3.2	7,586	2.8	2.7-3.0	7,502	5.1	4.9-5.4	7,609	8.7	8.4-9.0	7,447	19.1	18.8-19.4
<b>Gender:</b>															
Male	2,931	2.8	2.5-3.2	2,884	2.4	2.1-2.7	2,852	4.6	4.3-5.0	2,883	8.2	7.8-8.6	2,843	19.7	19.3-20.1
Female	4,788	3.2	2.9-3.5	4,702	3.2	3.0-3.5	4,650	5.6	5.3-5.9	4,726	9.2	8.8-9.5	4,604	18.5	18.1-18.8
<b>Age:</b>															
18-29	1,270	1.3	1.0-1.6	1,250	2.4	2.0-2.7	1,239	5.0	4.5-5.4	1,244	11.3	10.6-12.0	1,229	19.1	18.5-19.7
30-44	2,137	2.5	2.2-2.9	2,108	3.0	2.6-3.3	2,081	6.2	5.7-6.7	2,110	10.6	10.1-11.1	2,095	19.1	18.6-19.6
45-64	2,388	3.8	3.4-4.2	2,354	3.0	2.7-3.4	2,343	5.4	5.0-5.8	2,343	7.8	7.3-8.3	2,320	19.0	18.5-19.5
65+	1,882	4.8	4.2-5.3	1,834	2.9	2.5-3.3	1,804	3.1	2.7-3.5	1,873	4.0	3.6-4.5	1,764	19.1	18.5-19.8
<b>Education:</b>															
<High School	649	4.7	3.9-5.6	634	4.1	3.3-4.8	621	5.0	4.1-5.9	641	7.1	6.0-8.2	615	17.6	16.4-18.7
High School	2,654	3.4	3.0-3.8	2,596	3.3	2.9-3.6	2,572	5.2	4.8-5.6	2,608	8.4	8.0-9.0	2,546	18.9	18.4-19.4
Some College	2,277	3.0	2.6-3.3	2,248	2.6	2.3-2.9	2,232	5.3	4.9-5.8	2,257	9.4	8.8-9.9	2,205	19.1	18.6-19.6
College Degree	2,119	2.1	1.8-2.4	2,091	2.1	1.9-2.4	2,060	4.8	4.4-5.2	2,084	8.8	8.3-9.2	2,064	19.7	19.2-20.2
<b>Income:</b>															
<\$15,000	631	5.1	4.1-6.0	622	5.1	4.3-5.9	606	7.3	6.3-8.3	621	9.2	8.1-10.4	605	15.6	14.4-16.7
\$15,000 - \$24,999	1,456	4.2	3.6-4.7	1,429	3.8	3.3-4.4	1,422	5.5	4.9-6.2	1,441	9.0	8.3-9.8	1,398	18.2	17.4-18.9
\$25,000 - \$49,999	2,448	2.5	2.2-2.8	2,432	2.6	2.3-2.8	2,402	4.8	4.5-5.2	2,425	8.9	8.4-9.4	2,391	19.4	19.0-19.9
\$50,000 - \$74,999	1,043	2.3	1.8-2.9	1,029	1.7	1.4-2.0	1,022	4.6	4.1-5.2	1,038	9.1	8.4-9.8	1,019	20.0	18.3-20.6
\$75,000 +	899	1.8	1.3-2.2	890	1.6	1.3-2.0	884	5.0	4.3-5.6	883	8.7	8.0-9.4	884	20.4	19.7-21.2
<b>Race:</b>															
White	7,116	3.0	2.8-3.3	7,003	2.8	2.6-3.0	6,923	5.1	4.9-5.5	7,030	8.8	8.5-9.0	6,870	18.9	18.6-19.2
African American	855	4.1	3.4-4.9	830	4.3	3.6-4.9	826	5.6	4.8-6.3	828	10.5	9.5-11.5	818	18.7	17.8-19.6
Asian American	139	1.4	0.3-2.4	136	1.5	0.7-2.3	135	3.7	2.2-5.2	137	5.8	4.2-7.5	137	20.9	19.0-22.9
Native American	106	5.6	2.7-8.4	103	4.5	2.0-6.9	101	6.7	3.7-9.7	101	8.0	5.3-10.6	100	17.0	14.3-19.8
Hispanic Origin	1,051	2.3	1.8-2.8	1,021	3.6	3.0-4.1	1,016	4.7	4.1-5.3	1,011	6.9	6.1-7.6	1,004	20.6	19.8-21.5
<b>Place of Residence:</b>															
Rural	4,301	3.3	3.0-3.6	4,211	3.0	2.8-3.3	4,150	5.2	4.8-5.5	4,230	8.3	7.9-8.7	4,125	19.1	18.7-19.5
Urban	3,418	2.7	2.4-3.0	3,375	2.6	2.4-2.9	3,352	5.1	4.7-5.4	3,379	9.2	8.8-9.6	3,322	19.0	18.6-19.4

\*"Number" and "Percent" exclude missing, don't know, and refused responses.  
\*In the past 30 days.

# ACCESS TO HEALTH CARE

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Lack of a health care plan or inadequate insurance coverage prevents many people from getting needed care because they are financially unable to pay for services without the help of insurance. Persons with health insurance are generally more likely to have a primary care provider and to have received appropriate preventive care, such as early prenatal care, immunizations, or health screening tests.

## **NO HEALTH CARE PLAN**

### **Definition**

No Health Care Coverage (i.e., Uninsured): “No” to the question, “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?”

### **Current Prevalence**

Among Nebraska adults aged 18 to 64 years in 2001-2003, 15 percent stated that they did not have any type of health care coverage.

### **Trend over Time**

From 1993 through 2000, the proportion of uninsured adults under age 65 remained fairly steady at 10 to 11 percent in Nebraska (Figure 23). In 2001, the rate rose sharply to 16 percent and then dropped back to 14 percent in 2002 and 2003.

### **Who Does Not Have Coverage in Nebraska?**

Men (16 percent) were a little more likely than women in this age group (14 percent) to report having no health care plan at the time of the survey (Table 10).

The proportion of respondents with no health insurance was significantly higher among younger adults than among older respondents. Nearly one-fourth (24 percent) of young adults aged 18 to 29 stated they had no health care coverage, compared to 13 percent of adults aged 30 to 44 and 9 percent of those aged 45 to 64.

Significant differences in uninsured rates were also noted by educational attainment (Figure 24). Persons who had not completed high school (41 percent) were significantly more likely than those with more education to say they had no health insurance. Similarly, the proportion of adults with a high school education who were uninsured (20 percent) was significantly higher than the proportion of adults with some college (13 percent) or a college degree (5 percent).

Uninsured rates were significantly higher for respondents with incomes under \$25,000 per year (31 percent) than for those with annual incomes of \$25,000 to \$49,999 (13 percent). (Figure 25). Rates of uninsurance were also significantly higher for both of these income groups than for persons with annual household incomes of \$50,000 or more (2 to 3 percent).

Nebraskans of Hispanic origin were significantly more likely than persons in each of the other four major racial/ethnic groups to say they had no health insurance (45 percent) (Figure 26). Native Americans (31 percent uninsured) reported significantly higher rates of uninsurance than whites (13 percent) and Asian Americans (13 percent). The uninsured rate for African Americans in the state (21 percent) was significantly higher than the rate for white Nebraskans.

Residents of rural counties in Nebraska (16 percent) were significantly more likely than urban residents (13 percent) to indicate they had no health care coverage.



## Nebraska and the Nation

Nationwide, in the 2001-2002 BRFSS, 14 percent of adults aged 18 and older reported that they had no health insurance, compared to 13 percent in Nebraska (Figure 27). Of the six surrounding states, uninsured rates were highest in Wyoming (17 percent) and Colorado (16 percent). Iowa fared best with only eight percent of adults indicating they had no health care coverage.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2002	US BRFSS 2001-2002	US 2010 Target
Proportion of adults aged 18 and older who have no health insurance	0%	13%	14%	0%

## PLACE USUALLY GO FOR MEDICAL CARE

### Definition:

Responses to question, “When you are sick or need advice about your health, to which one of the following places do you usually go? Would you say: A doctor’s office? A public health clinic or community health center? A hospital outpatient department? A hospital emergency room? Urgent care center? Some other kind of place? No usual place?”

In the 2002 BRFSS, the majority of adults (82 percent) reported going to a doctor’s office when they were sick or needed medical advice (Figure 28). Seven percent stated that they usually go to a public health clinic or community health center for care. Four percent indicated they did not have a usual place to go.

Hispanic Nebraskans (29 percent) and African Americans (14 percent) were significantly more likely than white Nebraskans (6 percent) to seek medical care at a public health clinic or community health center.

## NO PERSONAL HEALTH CARE PROVIDER

### Definition

No Personal Doctor or Health Care Provider: “No” to the question, “Do you have one person you think of as your personal doctor or health care provider?”

### Current Prevalence

In the 2001-2003 BRFSS, 16 percent of adult Nebraskans stated that they do not have someone they consider their personal doctor or health care provider (Table 10).

### Trend Over Time

Data were not collected for this measure prior to 2001.

### Who Does Not Have a Personal Health Care Provider?

Men (21 percent) were significantly more likely than women (11 percent) to say they do not have a personal doctor or health care provider.

Younger adults were significantly more likely than older adults to report they do not have a personal physician. Thirty percent of respondents aged 18 to 29 indicated they do not have one, compared to 17 percent of adults aged 30 to 44. Significantly fewer respondents in the 45-to-64 (10 percent) and 65-and-over (six percent) age brackets reported not having a personal health care provider.

More than one-fourth of persons who had not completed high school (26 percent) indicated they did not have a personal physician. This proportion was significantly higher than the proportions reported for persons with more education. Only 15 percent of high school graduates, 16 percent of persons with technical training or some college, and 13 percent of college graduates stated they had no personal health care provider.

A similar pattern was evident by household income of respondent. The proportion of persons with incomes under \$25,000 per year with no personal physician was significantly greater than the proportions reported for those with higher incomes. Respondents with incomes of \$25,000-\$49,999 were also significantly more likely than those with incomes of \$75,000 or higher to say they did not have a personal physician.

Hispanic Nebraskans (47 percent) were significantly more likely than other racial or ethnic groups in the state to indicate they did not have anyone they consider their personal doctor or health care provider (Figure 29). Native Americans (31 percent) were significantly more likely than white (14 percent) or African American (20 percent) respondents to report having no personal physician. Asian Americans (27 percent) and African Americans were significantly more likely than white Nebraskans to give this response.

The proportion of urban Nebraskans (17 percent) without a personal physician was significantly higher than the proportion reported by Nebraskans living in rural counties (14 percent).

## **UNABLE TO SEE A DOCTOR DUE TO COST**

### **Definition**

Unable to See a Doctor due to Cost: “Yes” to the question, “Was there a time in the past 12 months when you needed to see a doctor but could not because of the cost?”

### **Current Prevalence**

In 2003, nine percent of adult Nebraskans reported that, at least once in the past 12 months, they had been unable to see a doctor due to potential cost of care (Table 10).

### **Trend over Time**

The proportion of respondents who said cost of health care kept them from visiting a physician when they needed it generally decreased from nine percent in 1993 to six percent in 2000, but then rose again to nine percent in 2003 (Figure 30).

### **Who’s at Risk in Nebraska?**

The proportion of respondents who indicated that cost prevented them from getting needed medical care was significantly higher among women (11 percent) than men (7 percent).

Younger adults aged 18 to 44 were significantly more likely than older adults to report that, at least once in the past year, they had been unable to see a physician because of cost of care. Thirteen percent of 18- to 29-year-olds and 12 percent of 30- to 44-year-olds gave this response, compared to 8 percent of respondents aged 45 to 64 and 3 percent of those 65 and older.

Persons with a college degree were significantly less likely than persons with less education to indicate that they had been unable to visit a doctor due to cost. Six percent of college graduates gave this response, compared to 15 percent of respondents with less than a high school education and 10 percent of high school graduates.

A similar pattern was evident by household income of respondent. The proportion of persons with incomes under \$25,000 per year who had foregone seeing a physician due to cost was significantly greater than the proportions reported for those with higher incomes. Respondents with incomes of \$25,000-

\$49,999 (10 percent) were also significantly more likely than those with incomes of \$50,000 or higher (3 percent) to say cost of health care prevented them from seeing a doctor.

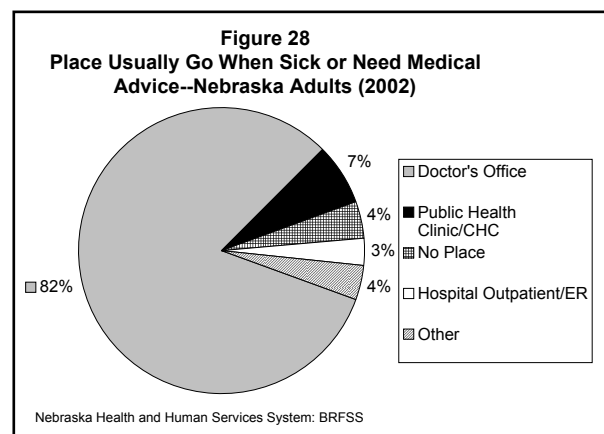
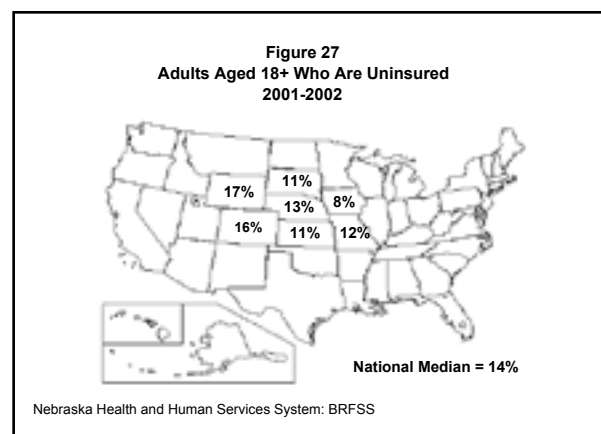
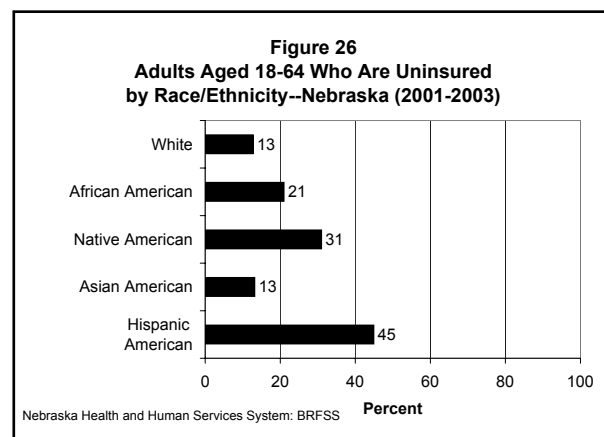
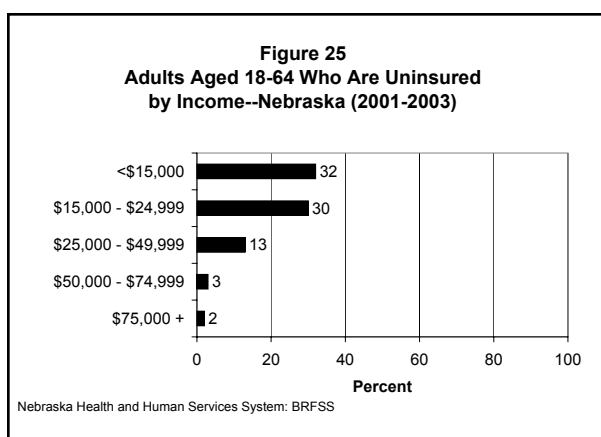
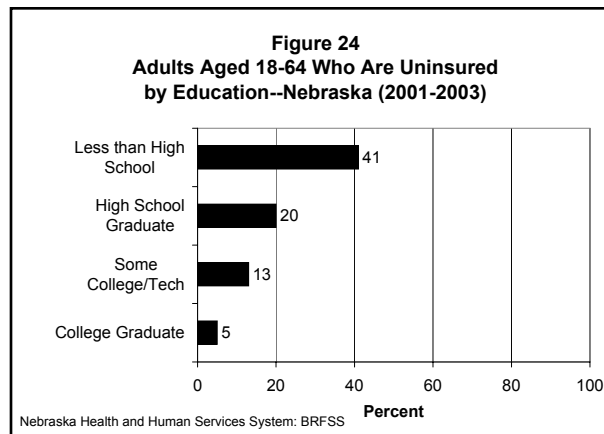
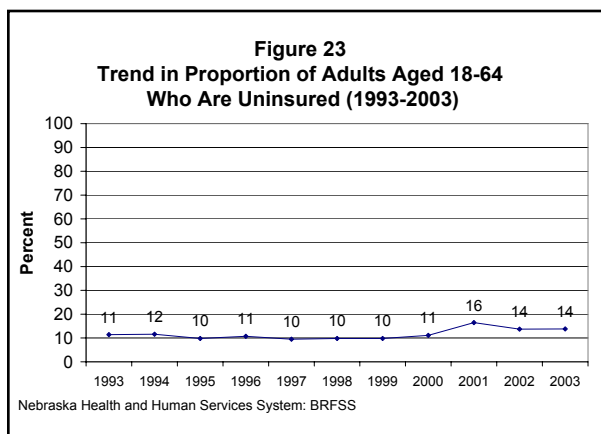
The proportions of Native Americans (24 percent), African Americans (15 percent), and Hispanic Americans (14 percent) who reported they had been unable to see a physician because of cost in the past year were significantly higher than the proportion of white Nebraskans who gave this response (nine percent) (Figure 31).

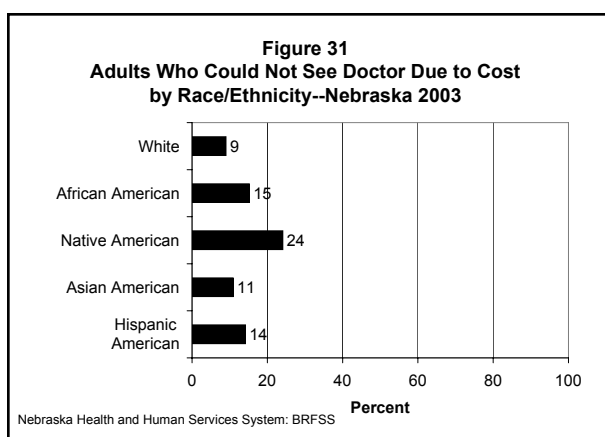
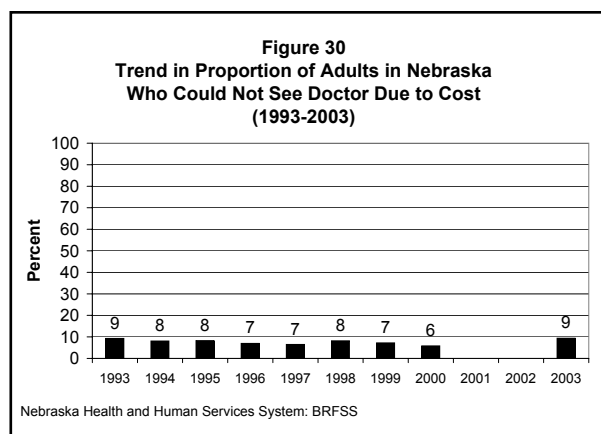
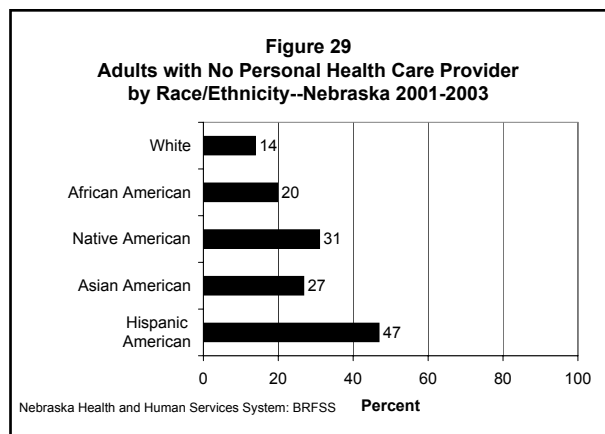
Differences by rural versus urban residence of respondents were not significant.

In 2002, BRFSS respondents were asked a slightly different question: “Was there a time in the past 12 months when you needed medical care, but could not get it?” Only four percent said there had been such a time.

These respondents were then asked, “What is the main reason you did not get medical care?” Two-thirds of these respondents (67 percent) said cost (including “no insurance”) was the main reason they did not receive care.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2003	US BRFSS 2001-2003	US 2010 Target
Proportion of adults aged 18 and older who reported a time in past 12 months when they needed to see doctor but could not because of cost	4%	9%	NA	7%





**TABLE 10**  
**Health Care Access**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	No Health Insurance, Aged 18 - 64				Does Not Have a Personal Health Care Provider				Unable to See Doctor Due to Cost (At Least Once in Past Twelve Months)--2003 Only			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	9,711	1,194	15	13.7-15.6	13,045	1,703	16	15.0-16.6	4,967	457	9	8.4-10.4
<b>Gender:</b>												
Male	3,908	492	16	14.1-17.1	5,018	936	21	19.5-22.3	1,954	127	7	5.9-8.6
Female	5,803	702	14	12.6-14.8	8,027	767	11	10.1-11.9	3,013	330	11	10.1-12.7
<b>Age:</b>												
18-29	1,986	423	24	22.0-26.8	1,996	567	30	28.0-32.9	693	92	13	10.2-15.8
30-44	3,594	423	13	11.5-14.3	3,595	516	17	15.0-18.0	1,365	177	12	10.2-13.9
45-64	4,131	348	9	7.8-10.1	4,136	428	10	9.1-11.3	1,661	145	8	6.6-9.6
65 +	--	--	--	--	3,233	180	6	4.8-7.0	1,223	39	3	2.1-4.2
<b>Education:</b>												
<High School	540	201	41	35.9-45.9	1,123	215	26	22.8-29.7	418	57	15	10.6-18.8
High School	2,988	495	20	17.6-21.5	4,463	548	15	13.5-16.4	1,672	158	10	8.0-11.4
Some College	3,030	358	13	11.5-14.7	3,781	512	16	14.5-17.5	1,401	153	11	8.9-12.6
College Degree	3,140	138	5	4.2-6.3	3,640	423	13	11.9-14.6	1,466	88	6	4.8-7.6
<b>Income:</b>												
<\$15,000	632	193	32	26.4-36.7	1,076	179	21	17.3-24.1	407	90	22	17.1-26.8
\$15,000 - \$24,999	1,439	377	30	26.6-32.8	2,392	398	22	19.6-24.3	875	131	16	13.1-19.0
\$25,000 - \$49,999	3,357	327	13	11.0-14.2	4,141	533	15	13.9-16.8	1,603	144	10	8.0-11.3
\$50,000 - \$74,999	1,662	43	3	2.0-4.0	1,806	198	12	10.4-13.9	735	21	3	1.7-4.6
\$75,000 +	1,500	26	2	1.1-3.8	1,600	140	10	8.0-11.4	682	19	3	1.5-4.4
<b>Race:</b>												
White	8,838	969	13	11.8-13.7	12,030	1,422	14	13.1-14.7	4,594	396	9	8.0-10.0
African American	1,476	283	21	17.9-24.1	1,934	322	20	17.2-22.3	1,006	175	15	12.6-17.8
Asian American	261	40	13	8.6-17.9	279	74	27	20.5-33.1	127	19	11	5.4-16.4
Native American	196	58	31	22.1-39.9	229	58	31	22.6-39.3	120	27	24	13.9-34.4
Hispanic Origin	2,113	880	45	42.1-47.8	2,325	959	47	44.2-49.6	1,207	200	14	11.7-16.6
<b>Place of Residence:</b>												
Rural	5,071	698	16	14.8-17.5	7,260	881	14	13.3-15.4	2,751	272	10	8.8-11.5
Urban	4,640	496	13	11.7-14.4	5,785	822	17	16.2-18.7	2,216	185	9	7.1-9.9

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

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# CARDIOVASCULAR DISEASE

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Cardiovascular disease (CVD) encompasses all diseases of the heart and blood vessels, including heart disease, stroke, congestive heart failure, hypertension, and atherosclerosis. According to the Centers for Disease Control and Prevention (CDC), 70.1 million Americans currently have CVD.

CVD is the leading cause of hospitalizations and deaths in the United States, taking the lives of more than 927,000 Americans in 2002. CVD accounted for 38 percent of all deaths that year and results in about as many deaths as the next five causes of death combined each year.

Heart disease is the leading cause of death in Nebraska and the United States, while stroke ranks third. In 2003, heart disease accounted for 3,948 deaths and stroke resulted in 1,090 deaths in Nebraska.

The American Heart Association estimates that the cost of CVD, including stroke, will be about \$393.5 billion in the United States in 2005. (This figure includes costs of medical expenditures and lost productivity.)

## **SYMPTOMS OF HEART DISEASE AND STROKE**

Heart attacks and strokes are serious events that require immediate medical care. According to the CDC, nearly half of all cardiac deaths occur before emergency medical services or hospital treatment can be given. Nearly one-half of all stroke deaths also occur before patients are transported to the hospital. Thus, it is extremely important that people can recognize the signs and symptoms of heart attack or stroke and know that the proper action to take is to call 9-1-1 for assistance immediately.

Participants in the 2003 Nebraska BRFSS were asked about their knowledge of the “signs and symptoms of a heart attack and stroke.” They were read a series of six possible symptoms of a heart attack and asked to indicate whether or not they thought each was a symptom. The same method was used to determine knowledge of stroke symptoms.

### **Heart Attack Symptoms**

More than nine of every ten respondents to the 2003 Nebraska BRFSS (94 percent) correctly stated that “chest pain or discomfort” is a symptom of heart attack (Table 11).

“Shortness of breath” and “pain or discomfort in the arms or shoulder” were each mentioned by 89 percent of respondents as being a heart attack symptom. Fewer respondents (73 percent) said “feeling weak, lightheaded, or faint” was a sign of a possible heart attack. Just over one-half (53 percent) stated that “pain or discomfort in jaw, neck, or back” could indicate a heart attack.

More than one-third of adults surveyed (37 percent) incorrectly stated that “sudden trouble seeing in one or both eyes” is a symptom of a heart attack.

### **Who Is Able to Identify Symptoms of Heart Attack?**

Altogether, only 10 percent of adults aged 18 and older were able to correctly identify all five signs or symptoms of a heart attack mentioned in the survey.

Women (12 percent) were significantly more likely than men (8 percent) to correctly report all five heart attack signs (Table 12).

A significantly smaller proportion of 18- to 29-year-olds (5 percent) were able to identify all symptoms, compared to persons aged 30 to 44 (11 percent), 45 to 64 (14 percent), and 65 and older (11 percent).

College graduates (15 percent) were significantly more likely than respondents in each of the three lower educational levels to know the five heart attack symptoms. Persons with some college (11 percent) and

high school graduates (8 percent) were also significantly more likely to have this knowledge than persons who had not completed high school (3 percent).

There were significant differences in awareness of heart attack symptoms by income level. The proportion of respondents earning \$50,000 or more per year (15 percent) that correctly identified all five was significantly greater than proportions reported for persons with lower household incomes (7 to 10 percent).

White Nebraskans (11 percent) were significantly more likely than Hispanic Americans (2 percent) or African Americans (6 percent) to know all the signs of a possible heart attack.

## **Stroke Symptoms**

“Sudden numbness or weakness of the face, arm, or leg, especially on one side” was correctly chosen by 93 percent of adults as a stroke symptom (Table 13). “Sudden confusion or trouble speaking” (88 percent) and “sudden trouble walking, dizziness, or loss of balance” (87 percent) were also mentioned by the majority of respondents. Seven out of ten adults (70 percent) stated that “sudden trouble seeing in one or both eyes” is a sign of possible stroke, while 64 percent thought that “severe headache with no known cause” is a stroke symptom.

When asked whether or not “sudden chest pain or discomfort” (a symptom of heart attack) is indicative of stroke, 39 percent incorrectly stated that it is.

## **Who Is Able to Identify Stroke Symptoms?**

Overall, just 19 percent of Nebraska adults were able to correctly identify all five symptoms of stroke included in the survey (Table 12).

Respondents in the two middle age brackets were significantly more likely to be aware of all the signs of stroke than either older or younger respondents. One-fourth of the respondents aged 45 to 64 (25 percent) and 19 percent of 30- to 44-year-olds identified all of the stroke symptoms, compared to only 14 percent each of 18- to 29-year-olds and respondents aged 65 and older.

Knowledge of stroke symptoms improved significantly with increasing levels of education. Among persons who had not finished high school, only six percent correctly identified all five. Twelve percent of high school graduates and 18 percent of respondents with some college or technical training answered all the questions about stroke symptoms correctly. For college graduates, 30 percent were aware of all of these symptoms of stroke.

The proportion of white Nebraskans (20 percent) who knew all the warning signs of stroke was significantly higher than the proportions of African Americans (11 percent), Asian Americans (5 percent) and Hispanic Americans (5 percent) who did. African Americans were also significantly more likely than Hispanic Americans to correctly identify all five stroke symptoms discussed in the survey.

Urban Nebraskans (22 percent) were significantly more likely than rural residents (16 percent) to correctly identify all the symptoms of stroke.

## **Action to Take If Someone Is Having Heart Attack or Stroke**

Respondents to the 2003 Nebraska BRFSS were asked, “If you thought someone was having a heart attack or a stroke, what is the first thing you would do?” The majority of respondents (85 percent) said they would call 9-1-1 (Table 14), which is the emergency response recommended in case of heart attack or stroke. Seven percent of respondents stated they would take the person to the hospital.

White respondents (86 percent) were significantly more likely than African Americans (81 percent), Asian Americans (73 percent), or Hispanic Americans (70 percent) to state that they would call 9-1-1 for assistance (Figure 32). African Americans were significantly more likely than Hispanic Nebraskans to call 9-1-1 if someone was having stroke or heart attack symptoms.



The proportion of rural Nebraskans who would call 9-1-1 if they thought someone was having a stroke or heart attack (83 percent) was significantly smaller than the proportion of urban residents who would respond in this manner (88 percent).

Although there were some differences in proportion of respondents who would call 9-1-1 in the event of a stroke or heart attack by gender, age, education and income, these differences were not statistically significant.

## **PREVENTION OF HEART ATTACK AND STROKE**

A number of preventable risk factors have been identified for cardiovascular disease (CVD), including high blood pressure, high blood cholesterol levels, smoking, lack of physical activity, overweight/obesity, and unhealthy eating habits. For most of these risk factors, lifestyle changes would result in a lower risk of developing CVD.

### **Respondents' Lifestyle Changes**

Respondents to the 2003 Nebraska BRFSS were asked about three possible lifestyle changes they may be making to lower their risk of CVD. They were asked, "To lower your risk of developing heart disease or stroke, are you: Eating fewer high fat or high cholesterol foods? Eating more fruits and vegetables? More physically active?"

### **High Fat/High Cholesterol Foods**

Overall, two-thirds of all respondents to the survey (67 percent) said they are eating fewer high fat or high cholesterol foods in order to lower their risk of stroke or heart disease (Table 15).

Women (76 percent) were significantly more likely than men (58 percent) in this study to say they were taking this step to lessen their risk of developing these diseases.

The proportion of older adults (aged 45 or older) who were cutting back on their consumption of high fat or high cholesterol foods for this reason (74 to 75 percent) was statistically greater than the proportions reported for younger adults. Among adults aged 18 to 29 years, 53 percent reported eating less of these foods. Among adults aged 30 to 44 years, 65 percent were making this change in their diets.

College graduates (71 percent) were significantly more likely than persons with less than a high school education (62 percent) to indicate they were eating fewer high fat or high cholesterol foods in order to reduce their risk of developing heart disease or stroke. Two-thirds of high school graduates and persons with some college or technical training (66 percent each) also were modifying their diets in this way.

Differences by household income, race or ethnic origin, or rural/urban residence of respondents were not statistically significant.

### **Fruits and Vegetables**

Nearly three-fourths of the adults participating in the 2003 Nebraska BRFSS (72 percent) reported eating more fruits and vegetables to help lower their risk of heart disease or stroke (Table 15).

As with the previous dietary change (reduction of high fat or high cholesterol foods in their diet), women (79 percent) were significantly more likely than men (64 percent) to say they are increasing the amount of fruits and vegetables in their diet for this reason.

Once again, the proportion of older adults (aged 45 and older) who were making this change to reduce their risk of developing heart disease or stroke was significantly greater than the proportion of younger adults. More than three-fourths of those aged 45 to 64 (76 percent) or aged 65 and older (79 percent) were increasing fruit and vegetable consumption, compared to 64 percent of 18- to 29-year-olds and 68 percent of 30- to 44-year-olds.

Asian Americans (85 percent), Hispanic Americans (79 percent), and African Americans (76 percent) were all significantly more likely than white Nebraskans (71 percent) to say they are eating more fruits and vegetables for this health reason.

Differences by education, annual income, and place of residence were not statistically significant.

### **Physical Activity**

Seven of every ten respondents (70 percent) stated they were more physically active than they had been for the purpose of lowering their risk of heart disease and stroke (Table 15).

Adults aged 65 and older (62 percent) were significantly less likely than younger adults to report increasing the amount of physical activity they get. In comparison, 70 percent of respondents aged 45 to 64 years and 73 percent of those aged 18 to 44 had become more physically active.

The proportion of college graduates who reported being more physically active (74 percent) was significantly greater, compared to the rates for high school graduates (69 percent) and those without a high school education (64 percent).

Persons with annual household incomes of \$75,000 or more (77 percent) were significantly more likely to indicate they were increasing the amount of physical activity they get than persons earning less than \$50,000 per year (65 to 69 percent).

The proportions of Asian Americans (83 percent) and Hispanic Americans (82 percent) who reported they had become more physically active to lower their risk of heart attack and stroke were significantly higher than the proportions of whites (69 percent) and African Americans (70 percent) in Nebraska.

### **Health Professional Recommendations for Lifestyle Changes**

BRFSS respondents were also asked, “Within the past 12 months, has a doctor, nurse, or other health professional told you to: Eat fewer high fat or high cholesterol foods? Eat more fruits and vegetables? Be more physically active?”

In general, adult Nebraskans were much more likely to adopt lifestyle changes on their own (based on responses to the questions in the previous section) than to receive a recommendation from a health professional to make these changes.

### **High Fat/High Cholesterol Foods**

Only 16 percent of adults said they had been told in the last year by a doctor, nurse, or other health professional to eat fewer high fat or high cholesterol foods (Table 16).

The proportion of older adults (aged 45 and older) who had been given this recommendation (21 to 22 percent) was significantly higher than the proportion of younger adults. Thirteen percent of persons aged 30 to 44 and only six percent of persons aged 18 to 29 had been told by a health professional to consume less high fat and high cholesterol foods.

Hispanic Americans (26 percent) and African Americans (23 percent) were significantly more likely than white (15 percent) or Asian (11 percent) Nebraskans to have received a recommendation to change their diet in this way (Figure 33a).

Differences by gender, education, household income, and place of residence of respondents were not statistically significant.

### **Fruits and Vegetables**

Less than one-fourth of adults surveyed (23 percent) had been told by a doctor or other health professional that they need to eat more fruits and vegetables (Table 16).

Adults 45 and older (28 to 30 percent) were significantly more likely than younger respondents to report being told they should increase their consumption of fruits and vegetables to reduce risk of heart disease and stroke. Only 16 percent of 18- to 29-year-olds and 19 percent of 30- to 44-year-olds were given this advice by a health professional in the last 12 months.

The proportion of respondents with less than a high school education that received a recommendation to eat more vegetables and fruits (29 percent) was significantly higher than the proportion reported for college graduates (20 percent).

Hispanic Americans (42 percent), Native Americans (39 percent), and African Americans (38 percent) were all significantly more likely than white Nebraskans (22 percent) to have been advised by a health professional that they should increase their consumption of these foods to reduce their risk of stroke and heart disease (Figure 33b).

### **Physical Activity**

About one-fourth of Nebraska BRFSS respondents (26 percent) reported being told in the last year by a health professional that should become more physically active to lessen their risk of developing stroke or heart disease (Table 16).

As with recommendations to eat less high-fat/high-cholesterol foods and more fruits and vegetables, respondents aged 45 and older were significantly more likely than younger ones to receive advice to get more exercise from a physician or other health professional. One-third (33 percent) of persons aged 45 to 64 and 30 percent of those aged 65 and older were told to be more physically active, compared to 17 percent of persons aged 18 to 29 and 21 percent of those aged 30 to 44.

Significantly greater proportions of Hispanic Americans (42 percent) and African Americans (38 percent) were advised, in the past year, to get more physical activity compared to Asian Americans (23 percent) and white respondents (25 percent) (Figure 33c).

No significant differences in physical activity recommendation rates were identified by gender, education, household income, or place of residence of respondents.

### **History of Heart Attack, Angina/Coronary Heart Disease, or Stroke**

Respondents to the 2003 Nebraska BRFSS were asked, “Has a doctor, nurse or other health professional ever told you that you had any of the following: A heart attack, also called a myocardial infarction? Angina or coronary heart disease? A stroke?”

Overall, four percent of respondents reported being told they had a heart attack (Table 17). Four percent were informed that they had angina or coronary heart disease. Only two percent had ever been told they had a stroke.

The average age at which respondents had their first heart attack was 57.4 years, with ages reported by individual respondents ranging from under 10 years to 89 years.

The average age at which respondents had their first stroke was 57.2 years. Individual responses ranged from age 12 to age 85 years.

### **Who Has Had a Heart Attack?**

Males (five percent) were significantly more likely than females (three percent) to have been told by a doctor or other health professional that they had a heart attack.

Persons aged 65 years and older (13 percent) were significantly more likely than younger persons to have ever had a heart attack. Only four percent of adults aged 45 to 64 reported they had a heart attack, while one percent of persons under age 45 (or fewer) had ever had one.

The proportion of respondents who were told they had a heart attack was significantly higher among persons with lower levels of education than among those with more years of schooling. Seven percent of respondents who had not completed high school ever had a heart attack, compared to only two percent of college graduates.

Significant differences were also found by household income. Seven percent of respondents earning less than \$25,000 per year reported being told they had a heart attack, compared to four percent of those with incomes of \$25,000 to \$49,999. Among persons with annual incomes of \$50,000 or more, only one percent stated they ever had a heart attack.

Four percent each of white and African American respondents said they had ever been told they had a heart attack. A significantly smaller proportion (one percent) of Hispanic Nebraskans reported ever having one. Thirteen percent of Native American adults said they ever had a heart attack.

Rural Nebraskans (five percent) were significantly more likely than urban residents (two percent) to have been told by a health professional that they had a heart attack.

### **Who Has Angina or Coronary Heart Disease (CHD)?**

Adults aged 65 and older (14 percent) were significantly more likely than younger adults to have been told they have angina or CHD (Table 17). Five percent of adults aged 45 to 64 were told they have one of these conditions—a significantly greater proportion than the zero to one percent reported by persons under age 45.

The proportion of persons with a high school education (five percent) or less (seven percent) who were diagnosed with angina or CHD is significantly higher than the proportion reported for college graduates (three percent).

Respondents with incomes below \$25,000 per year were significantly more likely to say they had angina or CHD (seven to nine percent), compared to respondents with annual incomes of \$25,000 or higher (two to four percent).

The proportion of Hispanic American adults who had ever been told they have angina or CHD (one percent) was significantly lower than rates reported for each of the other racial/ethnic groups except Asian Americans. Twelve percent of Native Americans indicated they had been diagnosed with angina or CHD, as did five percent of white respondents and four percent of African Americans.

### **Who Has Had a Stroke?**

As with heart attacks and CHD, the proportion of adults aged 65 and older who had ever been told they had a stroke (seven percent) was significantly higher than the rates for younger adults (Table 17). Only two percent of persons aged 45 to 64 and one percent of those aged 30 to 44 had been diagnosed as having a stroke.

College graduates (one percent) were significantly less likely to have ever been told by a health professional that they ever had a stroke, compared to adults who had not completed high school (five percent) or high school graduates (two percent).

Likelihood of having a stroke was greater among low-income persons. Seven percent of respondents with household incomes under \$15,000 per year and three percent of those earning \$15,000 to \$24,999 each year reported being informed by a health professional that they had a stroke. Among persons with incomes of \$25,000 or higher, the rate was zero to one percent.

African Americans (five percent) were significantly more likely than white (two percent) and Hispanic (one percent) Nebraskans to have ever been told they had a stroke.

## **Participation in “Rehab” Following Heart Attack or Stroke**

Respondents who reported ever having a heart attack or stroke were asked, “After you left the hospital following your [heart attack or stroke], did you go to any kind of outpatient rehabilitation? This is sometimes called ‘rehab’.” Altogether, 45 percent of respondents said they had gone to outpatient rehabilitation after their stroke or heart attack. No significant differences were noted by gender, age, educational level, household income, race/ethnicity, or place of residence of respondents.

## **Aspirin Use**

The American Heart Association recommends aspirin use for patients who have had a heart attack, unstable angina, a stroke caused by a blood clot, or transient ischemic attacks (TIA’s or “little strokes”), if not contraindicated. This recommendation is based on studies showing that aspirin helps prevent recurrence of these events. There is also evidence that aspirin is helpful in primary prevention of these events among people at high risk.

Respondents who were aged 35 years or older were asked a series of questions regarding use of aspirin. They were first asked, “Do you take aspirin daily or every other day?” About one-third (35 percent) indicated they do take aspirin this frequently.

## **Reasons for Not Taking Aspirin**

Those who did not report this level of aspirin use were then asked if they had “a health problem or condition that makes taking aspirin unsafe” for them. Six percent stated that they had stomach problems and eight percent said they had another health condition that prohibited them from taking aspirin. The remaining 86 percent did not have a health problem that made aspirin unsafe for them to take and could, presumably, take aspirin to help prevent stroke or heart attack.

## **Who Has Health Problems Preventing Use of Aspirin?**

Women (18 percent of those not using aspirin) were significantly more likely than men (nine percent) to have a health problem that prevents them from taking aspirin.

The proportion of older respondents (aged 65 and older) who could not use aspirin for health reasons (29 percent) was significantly greater than the proportion of 45- to 64-year-olds (14 percent). Both of these age groups were significantly more likely than persons aged 35 to 44 (seven percent) to be unable to take aspirin for this reason.

Persons with annual incomes below \$15,000 (28 percent) and those with incomes of \$15,000 to \$24,999 (19 percent) were significantly more likely than respondents with higher incomes (8 to 12 percent) to report not taking aspirin for medical reasons.

African Americans who do not take aspirin daily or every day were more significantly more likely (24 percent) to say it was due to a health problem than white (14 percent) or Hispanic American (6 percent) respondents who do not use aspirin regularly. The difference in rates between white and Hispanic respondents was also statistically significant.

## **Who Takes Aspirin Daily or Every Other Day?**

A significantly greater proportion of men (39 percent) take aspirin daily or every other day compared to women (31 percent) (Table 18).

The proportion of adults taking aspirin this frequently increased significantly with advancing age group. More than one-half (56 percent) of adults aged 65 and older follow this schedule of aspirin use, compared to one-third (34 percent) of adults aged 45 to 64 and 15 percent of those aged 35 to 44 years.

High school graduates (39 percent) and persons who had not completed high school (43 percent) were significantly more likely than persons with college degrees (30 percent) to report taking aspirin daily or every other day. One-third (33 percent) of respondents with some college or technical school follow this schedule for aspirin use.

Respondents with incomes below \$25,000 per year (43 to 44 percent) were significantly more likely than those with incomes of \$25,000 or higher (28 to 34 percent) to report taking aspirin this frequently.

Native Americans (38 percent), whites (36 percent), and African Americans (34 percent) all reported significantly greater rates of daily or every other day aspirin use than Hispanic Americans (19 percent) in Nebraska.

### **Aspirin Use by Presence of CVD**

Persons who had been told by a doctor or other professional that they had a heart attack, coronary heart disease (CHD), or stroke were significantly more likely to use aspirin daily or every other day than those who had not experienced these cardiovascular conditions (Figure 34).

Eighty percent of respondents who ever had a heart attack reported taking aspirin, compared to only 32 percent of those who had not had a heart attack.

More than three-fourths (76 percent) of respondents who were diagnosed with CHD indicated that they take aspirin daily or every other day. Among those who did not have CHD or angina, only 32 percent followed this regimen.

Among persons who ever had a stroke, 63 percent reported taking aspirin every day or every other day. Only 34 percent of respondents who had never had a stroke said they take aspirin this frequently.

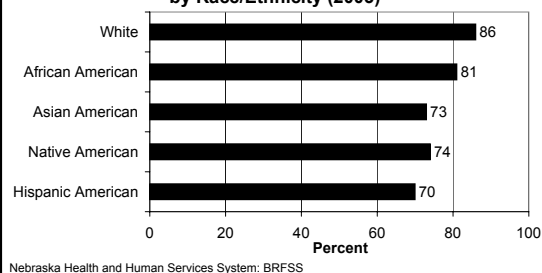
### **Reasons for Taking Aspirin Daily or Every Other Day**

The majority of respondents who stated they take aspirin every day or every other day do so to reduce the chance of a heart attack (83 percent) or stroke (75 percent) (Table 18). Less than one-fourth of aspirin users (22 percent) said they take it to relieve pain.

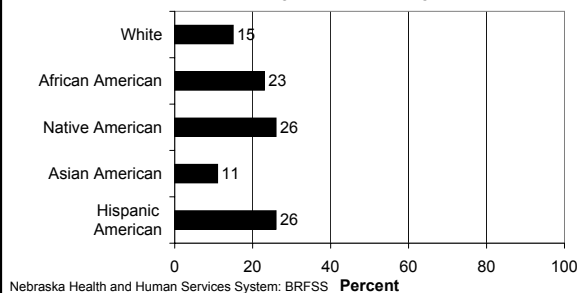
Younger aspirin users (aged 35 to 44 years) were significantly less likely than older users to say they are taking aspirin this frequently to lessen the risk of stroke or heart attack (Figure 35).

The proportion of Hispanic aspirin users who take it to prevent heart attack (59 percent) is significantly smaller than the proportion of whites who use it for this purpose (84 percent). Similarly, only 51 percent of Hispanic Americans taking aspirin do so to prevent stroke, compared to 75 percent of white Nebraskans.

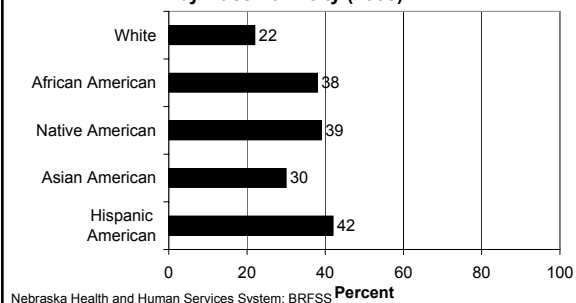
**Figure 32**  
**Respondents Who Would First Call 9-1-1**  
**If Someone Was Having Heart Attack or Stroke**  
**by Race/Ethnicity (2003)**



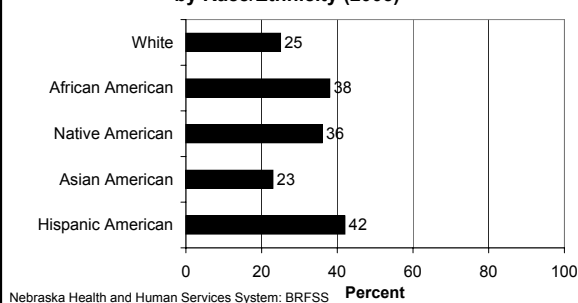
**Figure 33a**  
**Health Professional Recommended That**  
**Respondent Eat Fewer High Fat and High**  
**Cholesterol Foods by Race/Ethnicity (2003)**



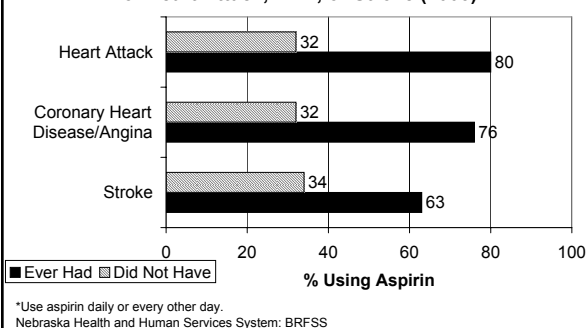
**Figure 33b**  
**Health Professional Recommended That**  
**Respondent Eat More Fruits/Vegetables**  
**by Race/Ethnicity (2003)**



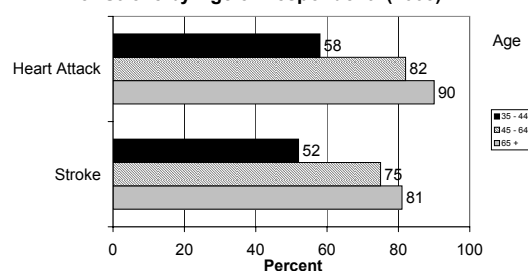
**Figure 33c**  
**Health Professional Recommended That**  
**Respondent Be More Physically Active**  
**by Race/Ethnicity (2003)**



**Figure 34**  
**Prevalence of Aspirin Use\* by History**  
**of Heart Attack, CHD, or Stroke (2003)**



**Figure 35**  
**Use of Aspirin to Reduce Risk of Heart Attack**  
**or Stroke by Age of Respondent\* (2003)**



<b>TABLE 11</b> <b>Respondents' Knowledge of Signs and Symptoms</b> <b>of Heart Attack (2003 BRFSS)</b>			
	Percent of Respondents		
	Yes, It's a Symptom	No, It's Not a Symptom	Don't Know/ Not Sure
<b>Actual Symptoms of Heart Attack</b>			
Chest Pain or Discomfort	94	3	3
Shortness of Breath	89	5	6
Pain or Discomfort in Arms or Shoulder	89	6	5
Feeling Weak, Lightheaded, or Faint	73	13	14
Pain or Discomfort in Jaw, Neck, or Back	53	24	23
<b>NOT a Symptom of Heart Attack</b>			
Sudden Trouble Seeing in One or Both Eyes	37	30	33

<b>TABLE 12</b> <b>Knowledge of Heart Attack and Stroke Symptoms</b> <b>Nebraska Adults, 2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Correctly Identified All Heart Attack Symptoms				Correctly Identified All Stroke Symptoms			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	4,979	551	10	9.5-11.4	4,979	962	19	17.5-19.9
<b>Gender:</b>								
Male	1,958	181	8	7.1-9.6	1,958	379	19	16.9-20.6
Female	3,021	370	12	11.2-13.8	3,021	583	19	17.1-20.1
<b>Age:</b>								
18-29	694	41	5	3.5-7.1	694	102	14	10.9-16.4
30-44	1,365	145	11	8.8-12.3	1,365	276	19	17.0-21.4
45-64	1,664	234	14	12.3-15.9	1,664	403	25	22.4-27.0
65 +	1,231	130	11	8.7-12.5	1,231	178	14	12.0-16.2
<b>Education:</b>								
<High School	422	19	3	1.6-4.6	422	26	6	3.6-9.4
High School	1,678	140	8	6.6-9.4	1,678	220	12	10.4-13.8
Some College	1,402	163	11	9.0-12.6	1,402	273	18	15.9-20.4
College Degree	1,467	228	15	13.2-17.2	1,467	443	30	27.7-33.0
<b>Income:</b>								
<\$15,000	408	28	7	4.0-9.5	408	48	11	7.6-15.4
\$15,000 - \$24,999	878	70	7	5.2-9.0	878	130	13	10.5-15.5
\$25,000 - \$49,999	1,607	172	10	8.3-11.5	1,607	286	18	15.7-19.9
\$50,000 - \$74,999	735	120	15	12.4-17.8	735	193	24	20.8-27.3
\$75,000 +	682	109	15	12.6-18.3	682	220	30	26.8-34.1
<b>Race:</b>								
White	4,605	530	11	10.0-12.0	4,605	932	20	18.5-21.1
African American	1,007	63	6	4.2-8.4	1,007	45	11	7.9-14.0
Asian American	128	8	6	0.4-11.8	128	6	5	0.6-9.5
Native American	121	9	8	1.2-15.4	121	17	15	5.6-24.1
Hispanic Origin	1,211	43	3	1.6-3.4	1,211	65	5	3.0-6.1
<b>Place of Residence:</b>								
Rural	2,760	283	10	8.4-10.8	2,760	459	16	14.6-17.6
Urban	2,219	268	11	10.0-12.9	2,219	503	22	19.8-23.6
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.								



<b>TABLE 13</b> <b>Respondents' Knowledge of Signs and Symptoms</b> <b>of Stroke (2003 BRFSS)</b>			
	Percent of Respondents		
	Yes, It's a Symptom	No, It's Not a Symptom	Don't Know/ Not Sure
<b>Actual Symptoms of Stroke</b>			
Sudden Numbness or Weakness of Face, Arm, or Leg, Especially on One Side	93	2	5
Sudden Confusion or Trouble Speaking	88	3	9
Sudden Trouble Walking, Dizziness, or Loss of Balance	87	3	9
Sudden Trouble Seeing in One or Both Eyes	70	6	23
Severe Headache with No Known Cause	64	10	26
<b>NOT a Symptom of Stroke</b>			
Sudden Chest Pain or Discomfort	39	34	27

<b>TABLE 14</b> <b>First Thing Respondents Would Do</b> <b>If Someone Was Having a Heart Attack or Stroke</b> <b>(2003 BRFSS)</b>	
Action	Percent
Call 9-1-1	85
Take them to the hospital	7
Tell them to call their doctor	1
Call their spouse or a family member	1
Do something else	5
Don't know/Not sure	1
TOTAL	100

**TABLE 15**  
**Heart Disease and Stroke--Lifestyle Changes**  
**Nebraska Adults, 2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	Fewer High Fat/Cholesterol Foods to Lower Risk of Heart Disease or Stroke				More Fruits and Vegetables to Lower Risk of Heart Disease or Stroke				More Physically Active to Lower Risk of Heart Disease or Stroke			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	4,739	3,335	67	65.6-68.8	4,807	3,539	72	70.0-73.0	4,802	3,318	70	68.3-71.2
Gender:												
Male	1,853	1,131	58	55.4-60.5	1,880	1,232	64	61.5-66.5	1,878	1,265	68	65.6-70.3
Female	2,886	2,204	76	74.1-77.6	2,927	2,307	79	76.8-80.2	2,924	2,053	71	69.6-73.3
Age:												
18-29	663	380	53	48.5-57.2	677	441	64	59.4-67.8	677	502	73	69.2-77.0
30-44	1,299	856	65	62.2-67.9	1,319	906	68	65.4-70.9	1,317	955	73	69.9-75.2
45-64	1,601	1,231	75	73.0-77.8	1,606	1,233	76	73.2-77.9	1,604	1,109	70	67.1-72.0
65 +	1,156	855	74	71.0-76.5	1,185	945	79	76.7-81.8	1,184	741	62	59.0-65.1
Education:												
<High School	381	236	62	56.1-67.7	394	280	72	66.4-76.8	395	245	64	59.0-69.9
High School	1,578	1,095	66	63.1-68.6	1,613	1,183	71	67.9-73.2	1,608	1,077	69	65.9-71.0
Some College	1,352	945	66	63.2-69.2	1,365	993	70	67.4-73.2	1,362	941	69	66.0-71.7
College Degree	1,421	1,054	71	68.3-73.9	1,428	1,078	74	71.0-76.4	1,430	1,052	74	71.1-76.4
Income:												
<\$15,000	383	273	67	60.9-73.6	393	298	74	68.1-80.0	390	245	65	58.6-70.8
\$15,000 - \$24,999	835	565	64	60.4-68.3	851	636	73	69.5-76.8	850	557	66	62.7-70.2
\$25,000 - \$49,999	1,541	1,093	67	64.2-69.7	1,566	1,119	69	65.9-71.3	1,561	1,080	69	66.9-72.0
\$50,000 - \$74,999	719	505	69	64.7-72.2	722	529	71	67.3-74.8	719	519	71	67.8-75.1
\$75,000 +	670	496	72	68.3-76.0	668	513	76	71.8-79.2	674	519	77	73.7-80.7
Race:												
White	4,405	3,109	67	65.6-68.8	4,457	3,270	71	69.6-72.7	4,455	3,067	69	67.6-70.7
African American	929	631	66	61.8-70.3	966	759	76	75.1-82.1	966	655	70	65.6-73.4
Asian American	117	72	62	50.8-72.8	122	103	85	76.6-92.4	120	97	83	75.7-91.0
Native American	113	72	65	52.0-77.3	120	88	76	66.4-85.1	119	85	71	61.1-81.8
Hispanic Origin	1,133	759	66	61.9-69.9	1,163	900	79	75.2-81.9	1,165	921	82	75.6-84.9
Place of Residence:												
Rural	2,623	1,828	66	64.2-68.5	2,664	1,932	71	68.8-72.8	2,659	1,799	68	66.0-70.1
Urban	2,116	1,507	68	65.8-70.5	2,143	1,607	72	70.0-74.5	2,143	1,519	72	69.6-74.0

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

**TABLE 16**  
**Heart Disease and Stroke--Lifestyle Changes Recommended by Health Professional**  
**Nebraska Adults, 2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	In Past 12 Months, Health Professional Told You to Eat Less High Fat/Cholesterol Foods				In Past 12 Months, Health Professional Told You to Eat More Fruits and Vegetables				In Past 12 Months, Health Professional Told You to Be More Physically Active			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	4,828	814	16	14.6-16.9	4,826	1,157	23	21.5-24.2	4,830	1,320	26	24.4-27.1
<b>Gender:</b>												
Male	1,891	322	16	14.3-17.8	1,888	422	22	19.4-23.6	1,887	488	25	22.4-26.7
Female	2,937	492	15	14.0-16.9	2,938	735	24	22.4-25.8	2,943	832	27	25.1-28.7
<b>Age:</b>												
18-29	679	46	6	4.4-8.4	679	107	16	12.4-18.7	679	124	17	14.0-20.4
30-44	1,322	174	13	10.8-14.7	1,322	265	19	16.8-21.4	1,324	298	21	18.9-23.6
45-64	1,613	352	22	20.0-24.6	1,615	439	28	25.0-29.9	1,614	538	33	30.8-36.0
65 +	1,194	240	21	18.1-23.1	1,191	342	30	26.7-32.4	1,193	353	30	27.1-32.8
<b>Education:</b>												
<High School	402	67	19	13.9-23.5	401	112	29	23.8-34.5	400	115	31	25.4-36.3
High School	1,615	288	17	14.7-18.7	1,613	415	24	21.8-26.5	1,617	452	26	23.8-28.6
Some College	1,369	225	15	12.7-16.7	1,370	321	22	19.5-24.4	1,371	377	25	22.4-27.4
College Degree	1,435	234	15	12.9-16.9	1,435	308	20	18.2-22.7	1,435	375	25	22.2-27.1
<b>Income:</b>												
<\$15,000	394	82	17	13.2-21.4	395	128	29	23.3-33.7	394	132	29	23.8-34.1
\$15,000 - \$24,999	852	156	18	15.0-21.3	849	237	27	23.4-30.6	850	244	27	23.8-30.8
\$25,000 - \$49,999	1,568	273	16	13.6-17.4	1,570	375	22	19.4-23.8	1,570	439	26	23.2-27.8
\$50,000 - \$74,999	722	124	18	14.4-20.5	721	164	22	19.2-25.8	722	196	26	22.8-29.8
\$75,000 +	674	97	14	11.2-16.6	674	135	20	17.0-23.5	674	170	25	21.2-28.3
<b>Race:</b>												
White	4,476	736	15	14.1-16.3	4,474	1,034	22	20.2-22.9	4,478	1,195	25	23.4-26.1
African American	970	248	23	19.5-26.0	971	401	38	34.1-42.2	970	399	38	33.9-42.2
Asian American	123	16	11	3.9-17.2	123	36	30	19.2-40.3	122	31	23	13.9-32.1
Native American	121	30	26	14.4-36.8	120	45	39	26.8-51.2	120	41	36	23.9-48.0
Hispanic Origin	1,170	298	26	22.7-30.2	1,172	486	42	37.4-45.6	1,174	473	42	38.3-46.5
<b>Place of Residence:</b>												
Rural	2,674	441	15	13.7-16.6	2,673	648	22	20.7-24.2	2,677	704	24	22.6-26.1
Urban	2,154	373	16	14.7-18.2	2,153	509	23	21.2-25.4	2,153	616	27	25.2-29.6

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

**TABLE 17**  
**History of Heart Disease and Stroke**  
**Nebraska Adults, 2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	Ever Told by Health Professional That You Had a Heart Attack				Ever Told by Health Professional That You Had Angina or Coronary Heart Disease				Ever Told by Health Professional That You Had a Stroke			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	4,832	218	4	3.2-4.3	4,812	253	4	3.8-5.0	4,834	123	2	1.8-2.6
<b>Gender:</b>												
Male	1,890	120	5	4.0-5.8	1,881	117	5	4.0-5.9	1,894	47	2	1.5-2.9
Female	2,942	98	3	2.1-3.3	2,931	136	4	3.1-4.5	2,940	76	2	1.7-2.8
<b>Age:</b>												
18-29	679	0	0	0.0-0.0	679	0	0	0.0-0.0	679	0	0	0.0-0.0
30-44	1,325	11	1	0.4-1.6	1,324	10	1	0.3-1.4	1,325	10	1	0.2-1.0
45-64	1,615	63	4	2.7-4.6	1,609	82	5	3.7-6.0	1,616	32	2	1.4-3.3
65 +	1,194	143	13	10.6-14.8	1,180	160	14	11.9-16.3	1,194	81	7	5.4-8.7
<b>Education:</b>												
<High School	399	35	7	4.3-9.0	396	41	7	4.9-9.7	401	24	5	2.9-7.4
High School	1,620	96	5	3.9-6.0	1,608	104	5	4.3-6.5	1,621	50	2	1.8-3.2
Some College	1,369	51	3	2.2-4.0	1,368	61	4	2.8-5.0	1,369	31	2	1.2-3.0
College Degree	1,437	36	2	1.6-3.3	1,433	46	3	1.9-3.6	1,436	18	1	0.5-1.7
<b>Income:</b>												
<\$15,000	393	33	7	4.2-9.0	394	41	9	5.8-11.6	394	30	7	4.0-9.9
\$15,000 - \$24,999	853	68	7	5.4-9.1	846	71	7	5.3-8.8	853	38	3	2.3-4.6
\$25,000 - \$49,999	1,571	63	4	2.7-4.6	1,565	65	4	2.7-4.6	1,570	21	1	0.7-1.9
\$50,000 - \$74,999	723	9	1	0.4-2.4	722	21	3	1.3-3.7	724	7	1	0.3-2.3
\$75,000 +	674	7	1	0.2-1.6	673	13	2	0.8-3.0	673	2	0	-0.1-0.6
<b>Race:</b>												
White	4,481	209	4	3.4-4.6	4,463	242	5	4.0-5.2	4,482	108	2	1.6-2.5
African American	972	56	4	3.1-5.7	964	55	4	2.9-5.5	968	44	5	3.0-6.3
Asian American	124	1	0	-0.5-1.4	122	0	0	0.0-0.0	123	4	5	-1.0-10.6
Native American	120	14	13	4.7-20.4	120	12	12	4.0-19.8	120	5	5	-0.3-9.4
Hispanic Origin	1,172	24	1	0.6-1.6	1,168	21	1	0.5-1.3	1,173	15	1	0.3-1.7
<b>Place of Residence:</b>												
Rural	2,678	155	5	4.1-5.8	2,664	156	5	3.9-5.5	2,679	67	2	1.6-2.8
Urban	2,154	63	2	1.8-3.1	2,148	97	4	3.1-4.8	2,155	56	2	1.6-2.9

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

**TABLE 18**  
**Heart Disease and Stroke--Aspirin Use**  
**Nebraska Adults Aged 35 and Older, 2003**  
**(with 95% Confidence Intervals--SUDAN)**

	Take Aspirin Daily or Every Other Day				Take Aspirin to Relieve Pain				Take Aspirin to Reduce Chance of a Heart Attack				Take Aspirin to Reduce Chance of a Stroke			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	3,749	1,336	35	33.2-36.6	1,331	268	22	19.4-24.5	1,313	1,099	83	80.4-85.0	1,259	948	75	72.0-77.4
<b>Gender:</b>																
Male	1,454	597	39	36.4-41.8	595	124	23	18.9-26.4	587	490	83	79.0-85.9	564	419	74	69.8-77.7
Female	2,295	739	31	29.0-33.2	736	144	21	17.6-24.6	726	609	83	79.8-86.0	695	529	76	72.3-79.3
<b>Age:</b>																
35-44	939	131	15	12.5-17.8	131	70	54	44.5-63.4	129	74	58	48.5-67.3	126	62	52	42.2-61.4
45-64	1,616	548	34	31.7-36.9	546	120	23	18.6-26.8	544	449	82	78.7-85.9	523	393	75	71.3-79.5
65 +	1,194	657	56	53.1-59.3	654	78	12	9.5-15.1	640	576	90	87.4-92.5	610	493	81	77.2-84.0
<b>Education:</b>																
<High School	317	144	43	36.3-48.8	143	34	29	19.4-37.7	138	108	76	67.3-84.5	131	92	68	59.0-77.8
High School	1,377	548	39	35.7-41.3	545	123	25	20.7-29.2	540	446	82	78.4-85.6	515	381	74	69.5-77.9
Some College	997	328	33	29.9-36.4	328	55	19	13.8-23.3	324	278	85	80.2-89.0	313	245	77	71.9-82.2
College Degree	1,052	313	30	26.5-32.6	312	56	18	13.2-22.3	308	264	85	80.1-89.1	297	228	77	71.5-81.9
<b>Income:</b>																
<\$15,000	305	138	44	37.5-49.9	138	26	18	11.6-25.3	134	109	82	74.9-89.0	131	98	76	67.6-83.6
\$15,000 - \$24,999	663	281	43	38.7-47.3	281	57	23	17.3-29.2	274	233	83	77.2-88.2	264	204	75	69.2-81.3
\$25,000 - \$49,999	1,194	417	34	31.0-36.8	415	83	21	16.6-25.4	411	345	82	78.3-86.6	391	293	74	69.3-79.0
\$50,000 - \$74,999	548	147	28	23.5-31.7	147	31	24	15.8-31.4	146	118	80	73.0-87.1	141	106	73	65.1-81.3
\$75,000 +	561	158	29	24.8-32.8	157	39	26	18.6-33.3	158	132	83	77.0-89.4	151	111	75	68.1-82.4
<b>Race:</b>																
White	3,528	1,281	36	34.0-37.5	1,276	254	21	18.8-23.9	1,260	1,061	84	81.3-85.8	1,210	914	75	72.6-78.0
African American	753	271	34	29.8-38.4	264	61	24	17.6-30.1	257	205	78	71.2-84.1	245	168	70	62.8-76.6
Asian American	51	8	13	2.8-23.5	8	#	#	#	8	#	#	#	8	#	#	#
Native American	94	40	38	24.6-50.9	40	#	#	#	37	#	#	#	37	#	#	#
Hispanic Origin	568	125	19	14.9-23.7	123	50	48	35.1-60.4	124	78	59	46.6-71.5	118	62	51	38.4-64.2
<b>Place of Residence:</b>																
Rural	2,169	814	36	34.0-38.4	812	169	23	19.2-25.8	800	665	82	79.1-85.1	765	567	73	70.0-76.8
Urban	1,580	522	33	30.6-35.7	519	99	21	17.0-25.2	513	434	84	79.8-87.3	494	381	77	72.5-80.9

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.  
# - Data not reported due to N < 50.

# DIABETES

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The number of newly-diagnosed cases of diabetes has risen at an alarming rate in the United States. The number of adults with diagnosed diabetes (including women with gestational diabetes) has increased 61 percent since 1991. With obesity on the increase, it is likely that the number of cases of diabetes will continue this strong upward trend.

Diabetes is also becoming much more prevalent among children in the United States. Ten years ago, type 2 diabetes was rarely seen in children; now, children account for more than one-half the new cases of diabetes.

In addition to the 18.2 million Americans who currently have diabetes, an estimated 41 million American adults aged 40 to 74 years are at high risk for developing diabetes. They have pre-diabetes; that is, their blood sugar is elevated but not high enough for them to be classified as having diabetes.

Each year, more than 213,000 Americans die from diabetes or complications related to it. This disease ranks sixth as a leading cause of death nationwide. In Nebraska, diabetes-related death rates have risen steadily over the past ten years. In 2000, diabetes became the sixth leading cause of death in the state, up from seventh in 1999.

Diabetes often results not only in a shortened life span, but also increases the probability of various complications such as heart disease, stroke, kidney failure, blindness and amputation of the lower limbs. Women with diabetes are at greater risk of pregnancy complications than are women who do not have this disease. In addition, infants born to mothers with diabetes are more likely than other infants to die at birth or have birth defects.

## Definition

Have diabetes: Have ever been told by a doctor that you have diabetes. Does not include females told only during pregnancy.

## Current Prevalence

Altogether, six percent of adults in Nebraska in the 2001-2003 BRFSS said a doctor had told them that they have diabetes (Table 19). If women told during pregnancy that they have diabetes (gestational diabetes) were included, prevalence would be increased by less than one percentage point.

## Trend over Time

Prevalence of diabetes among the adult population remained fairly constant at four to five percent between 1994 and 2001 (Figure 36). In 2002 and 2003, prevalence increased to about six percent.

## Who's at Risk in Nebraska?

Men and women were about equally likely to report they had been diagnosed with diabetes (six percent each) (Table 19).

Significant differences in prevalence of diabetes were evident by age group of respondent (Figure 37). Persons aged 65 and older (13 percent) were significantly more likely than younger persons to indicate they have diabetes. Respondents aged 45 to 64 (eight percent) were also significantly more likely than 30- to 44-year-olds (two percent) and 18- to 29-year-olds (one percent) to say they have diabetes.

The proportion of adult Nebraskans without a high school education who had been told by a physician that they had diabetes (nine percent) was significantly higher than the proportions of college graduates (four percent) and persons with some college or technical training (six percent) who have this disease.

Diabetes prevalence rates were significantly higher for respondents with incomes under \$25,000 per year

(eight to nine percent) than for those with annual incomes of \$25,000 to \$49,999 (six percent). Prevalence of diabetes was also significantly higher for both of these income groups than for persons with annual household incomes of \$50,000 or more (three to four percent).

Native Americans (14 percent) and African Americans (11 percent) were significantly more likely than whites (6 percent) and Asian Americans (2 percent) in the state to be diagnosed with diabetes (Figure 38). African Americans were also significantly more likely than Hispanic Americans (seven percent) in Nebraska to report having diabetes.

Rural Nebraskans (six percent) were slightly more likely than urban residents (five percent) to say they had been told by a doctor that they have diabetes, but differences were not significant.

## Nebraska and the Nation

The proportion of respondents to the Nebraska BRFSS who had ever been told by a doctor that they have diabetes (six percent) was slightly lower than the 2001-2003 national median of seven percent (Figure 39). These estimates do not include women with gestational diabetes. Estimates for the six states bordering Nebraska showed a fairly narrow range of prevalence (from five percent for Colorado and Wyoming to seven percent for Missouri).

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2003	US BRFSS 2001-2003	US 2010 Target
Overall prevalence rate of clinically diagnosed diabetes among adults age 18+	2.5%	6%	7%	2.5%

## Management of Diabetes

Diabetes mellitus is a disease that affects the body's ability to manage glucose, or blood sugar. Type 1 diabetes (formerly called juvenile or insulin-dependent diabetes) is diagnosed primarily in children and adolescents. Persons with type 1 diabetes need daily insulin injections or an insulin pump to stay alive. About five to ten percent of people with diabetes have the type 1 form of the disease.

Type 2 diabetes (previously called adult-onset or non-insulin-dependent diabetes) is the most frequently occurring form of the disease, accounting for about 90 percent of diagnosed cases. It usually is seen in adults over the age of 45 and is frequently associated with obesity and physical inactivity. Type 2 diabetes can be controlled with diet and exercise, frequently in combination with oral medication. However, a sizable proportion of persons with type 2 diabetes use insulin.

Gestational diabetes is a third type of the disease that occurs in about two to five percent of all pregnancies, but usually disappears when pregnancy is over. Still, women who have had gestational diabetes are at greater risk of later developing type 2 diabetes than other women.

## Age at Diagnosis

The majority of adults (88 percent) in the 2001-2003 BRFSS reported being diagnosed with diabetes as adults aged 30 or older (Figure 40). Nearly two-thirds (64 percent) were age 45 or older when their doctor first told them they had diabetes. Five percent of respondents stated that they had been diagnosed as children or adolescents under age 18.

## Use of Insulin

Less than one-third (31 percent) of Nebraska BRFSS respondents with diabetes said they are now taking insulin for this condition (Table 19). No significant differences were found in usage patterns by gender, age, race/ethnicity, education, income, or rural/urban residence of respondents.

## **Use of Diabetes Pills**

In 2001-2003, two-thirds of BRFSS respondents with diabetes (68 percent) reported they are currently taking diabetes pills to manage their condition (Table 19). As with insulin use, no significant differences were found in usage of diabetes pills by gender, age, race/ethnicity, education, income or rural/urban residence of respondents.

## **Nebraska and the Nation**

Comparable data for the nation and for Missouri are not available, since not all states asked the question about insulin usage. However, in 2001-2002, the proportion of adult Nebraskans with diabetes who currently took insulin (30 percent) was slightly lower than the proportion in Colorado (31 percent) and South Dakota (33 percent) (Figure 41). Iowa and Kansas reported lower percentages of adults with diabetes taking insulin (26 percent each).

## **Blood Glucose Testing**

Recent research has emphasized the importance of frequent testing of blood sugar levels and adjustments to insulin administered, based on blood sugar readings. This tighter control of blood sugar levels cuts the risk of complications due to diabetes considerably.

Respondents to the 2001-2003 BRFSS who reported having diabetes were asked how often they check their blood for glucose or sugar (Figure 42). They were asked to include in their estimate the times when a family member or friend may have checked their blood sugar, but not to include checks performed by a health professional. More than one-third (38 percent) said they check it more than once a day, while 25 percent check it daily. Less than one-fifth (19 percent) take blood sugar readings one to six times per week and nine percent test their blood sugar less than once a week. Nine percent of all adults with diabetes reported that they never check their blood to determine blood glucose levels.

In this study, Hispanic Nebraskans with diabetes were significantly less likely to check their blood sugar more than once a day (19 percent), compared to African Americans (47 percent) and white Nebraskans (38 percent).

## **Physician Visits for Diabetes**

Research has shown the effectiveness of prevention efforts such as controlling blood glucose levels and screening for early diabetes complications (e.g., eye, foot, and kidney abnormalities) when they are followed by appropriate treatment and continuing prevention efforts. However, prevention is not always used routinely by health professionals in their daily practice, resulting in unnecessary illness, disability, death, and expense due to complications of diabetes.

The American Diabetes Association (ADA) recommends that patients who take insulin or who have trouble controlling their blood sugar should see their doctor at least four times a year. In other cases, two to three physician visits are recommended annually.

In 2001-2003, 70 percent of adults with diabetes said they visited a physician, nurse, or other health professional one to four times in the last year for this condition (Figure 43). Eleven percent recorded five to nine visits and an additional 11 percent had seen the doctor 10 or more times in the last 12 months for their diabetes. Eight percent stated they had not visited a health professional at all in the past year for this condition.

## **Hemoglobin A-1-C Testing**

Respondents with diabetes were read a description of a test of average blood sugar levels that their doctor may have done for them. The description states, "A test for hemoglobin 'A-1-C' measures the average level of blood sugar over the past three months." They were then asked how many times in the past 12 months a doctor, nurse, or other health professional checked them for hemoglobin A-1-C.



More than eight of every ten respondents with diabetes (82 percent) reported having the hemoglobin A-1-C test one to four times during the past year (Figure 44). Four percent said they had this test 5 to 9 times, while replies for three percent of respondents ranged from 10 to 19 times in the past year. Ten percent of respondents with diabetes did not have this test in the last 12 months. Only about one percent did not know what the A-1-C test is.

Although three-fourths of respondents aged 65 and older with diabetes (77 percent) indicated they had this test one to four times in the past 12 months (Table 20), persons in this age group were significantly less likely to report this frequency of testing than persons aged 45 to 64 (88 percent). Instead, a greater proportion of persons aged 65 and older (11 percent) stated they had not had this test in the past year, compared to 45- to 64-year-olds (6 percent).

A significantly greater proportion of urban Nebraskans with diabetes (88 percent) stated they had this test one to four times in the last year, compared to 78 percent of rural residents with diabetes.

Hispanic Americans with diabetes (11 percent) were much more likely than African Americans (3 percent) or whites (2 percent) with this disease to say they didn't know what the hemoglobin A-1-C test is (Figure 45). In addition, Hispanic Nebraskans (57 percent) were significantly less likely than whites (83 percent) or African Americans (82 percent) to have this test one to four times in the past year.

In fact, 20 percent of Hispanic adults with diabetes had not had the hemoglobin A-1-C test in the last 12 months. Only five percent of African Americans and nine percent of whites reported no A-1-C testing in the past year. (Numbers of Asian American and Native American respondents with diabetes were too small to permit comparison).

## **Feet Examinations**

The Centers for Disease Control and Prevention recommend that persons with diabetes check their feet daily for sores or irritations. In the 2001-2003 BRFSS, respondents with diabetes were asked how often they check their feet for this reason. They were instructed to include times when checked by a family member or friend, but not times when their feet were checked by a health professional.

Three-fourths of respondents with diabetes stated that they check their feet daily (74 percent) or more frequently (2 percent). Twelve percent reported examining their feet one to six times a week, while nine percent reported that they never do this (Figure 46).

BRFSS respondents with diabetes were also asked if they "ever had any sores or irritations on your feet that took more than four weeks to heal." Most of them (89 percent) indicated that they had not, but 11 percent reported that they had at some time had a sore that took this long to heal.

CDC also recommends that persons with diabetes have their feet examined every time they visit their physician. About six of every ten (58 percent) respondents with diabetes reported having their feet checked for sores or irritations from one to four times in the past year. However, nearly one-third (31 percent) indicated that they had not had their feet checked by a doctor in the last year (Table 20).

Older adults (aged 65 and older) were significantly more likely (36 percent) than those aged 45 to 64 (25 percent) to say their feet were not checked by a health professional in the past 12 months.

A significantly greater proportion of Hispanic adults with diabetes (50 percent) indicated they had not had their feet checked by a health professional in the last year, compared to white (30 percent) or African American adults (22 percent).

Rural residents (35 percent) were significantly more likely than those living in urban counties (24 percent) to report not having this kind of examination in the past year.

## **Eye Examinations**

The ADA recommends that a comprehensive dilated eye and visual examination should be performed annually by an eye doctor for all patients aged 12 and over who have had diabetes for at least five years,

all patients over the age of 30, and any patients with visual symptoms and/or abnormalities.

In the 2001-2003 BRFSS, respondents with diabetes were asked when they last had “an eye exam in which the pupils were dilated. This would have made you temporarily sensitive to bright light.” Altogether, more than three-fourths (77 percent) reported having such an exam within the past year (Figure 47). About one-fifth (19 percent) said it had been more than a year since they last had an eye exam that involved pupil dilation. Four percent of adults with diabetes indicated that they had never had this kind of eye examination.

Respondents with diabetes were also asked if a doctor has ever told them that “diabetes has affected your eyes or that you had retinopathy.” While the majority said “No” (73 percent), more than one-fourth of adults with diabetes (27 percent) reported that their physician had told them this.

### **Education on Diabetes Management**

Adults with diabetes who participated in the 2001-2003 Nebraska BRFSS were asked if they had “ever taken a course or class in how to manage your diabetes yourself.” About six of every ten respondents (59 percent) said they had (Table 20).

Respondents aged 45 to 64 (65 percent) were significantly more likely than respondents aged 65 or older (52 percent) to have taken a course in diabetes management.

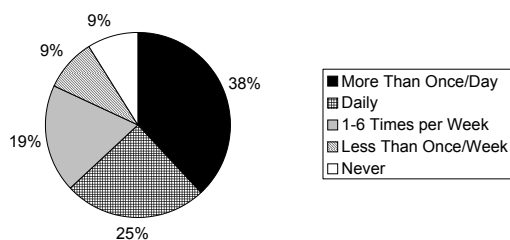
A significantly smaller proportion of persons with less than a high school education (40 percent) had ever taken a class on how to manage their diabetes, compared to persons with more education. More than two-thirds of college graduates (69 percent) had participated in a diabetes management course, as had 64 percent of respondents with some college or technical training and 57 percent of high school graduates.

Persons with lower household incomes were less likely than were persons with higher annual incomes to say they had received diabetes management education. Respondents with incomes under \$15,000 per year were significantly less likely (44 percent) than persons earning \$25,000 or more to have attended this kind of class. Similarly, respondents in the \$15,000-\$24,999 income bracket were significantly less likely (53 percent) than those making \$50,000 or more per year (75 to 77 percent) to take such a class.

Little more than one-half (53 percent) of rural adults with diabetes had ever taken a class to learn how to manage this condition—a significantly smaller proportion than that reported for urban adults with diabetes (67 percent). No significant differences were found by gender or by race/ethnic origin of respondents.

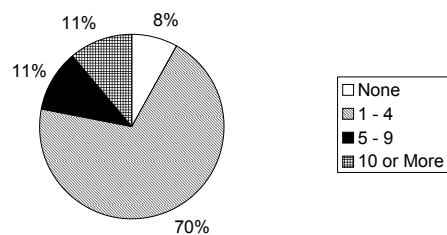


**Figure 42**  
Frequency of Blood Sugar Checks  
Among Persons with Diabetes (2001-2003)



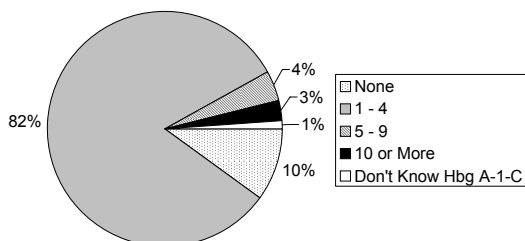
Nebraska Health and Human Services System: BRFSS

**Figure 43**  
Number of Visits to Health Professional for  
Diabetes in Last 12 Months (2001-2003)



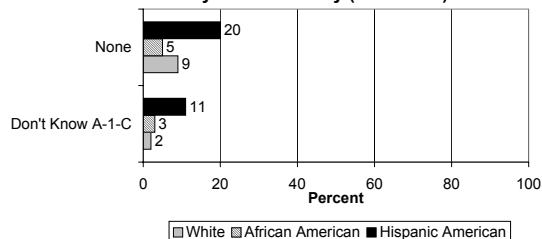
Nebraska Health and Human Services System: BRFSS

**Figure 44**  
Number of Times Had Hemoglobin A-1-C Test in  
Past 12 Months (2001-2003)



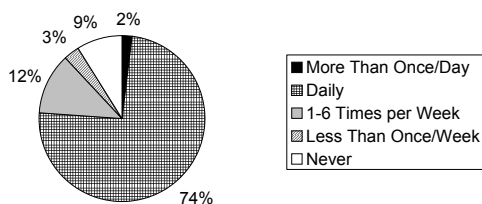
Nebraska Health and Human Services System: BRFSS

**Figure 45**  
Respondents Who Did Not Have Hemoglobin  
A-1-C Testing in Past 12 Months or Did Not Know  
What It Is by Race/Ethnicity (2001-2003)



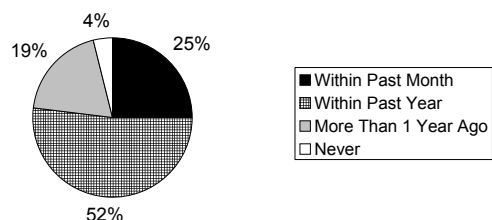
Nebraska Health and Human Services System: BRFSS

**Figure 46**  
How Often Persons with Diabetes Check  
Their Feet for Sores or Irritations (2001-2003)



Nebraska Health and Human Services System: BRFSS

**Figure 47**  
When Had Last Eye Exam with Pupils Dilated  
Persons with Diabetes (2001-2003)



Nebraska Health and Human Services System: BRFSS

**TABLE 19**  
**Diabetes**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAN)**

	Ever Told You Have Diabetes (Not Including Gestational Diabetes)				Currently Taking Insulin*				Currently Taking Diabetes Pills*			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	13,044	861	6	5.4-6.2	861	253	31	27.2-34.5	859	587	68	64.0-71.2
<b>Gender:</b>												
Male	5,022	361	6	5.4-6.8	361	101	32	25.9-37.2	360	261	71	65.2-76.2
Female	8,022	500	6	5.0-6.1	500	152	30	25.6-34.7	499	326	64	59.6-69.3
<b>Age:</b>												
18-29	1,997	18	1	0.4-1.2	18	#	#	#	18	#	#	#
30-44	3,597	70	2	1.4-2.4	70	19	30	17.0-42.3	69	41	61	47.9-73.9
45-64	4,135	339	9	7.5-9.5	339	90	28	22.5-33.8	339	252	74	68.2-79.2
65 +	3,233	427	13	12.0-14.6	427	130	31	26.0-35.9	426	284	66	60.9-71.2
<b>Education:</b>												
<High School	1,121	116	9	7.0-10.6	116	36	30	20.6-39.5	115	84	75	66.6-84.3
High School	4,463	349	7	6.0-7.6	349	97	30	23.9-35.3	349	240	69	63.1-74.5
Some College	3,778	234	6	4.9-6.5	234	64	30	23.2-37.3	233	165	68	60.7-75.0
College Degree	3,643	160	4	3.1-4.4	160	55	35	26.5-43.9	160	97	59	49.9-67.9
<b>Income:</b>												
<\$15,000	1,075	129	9	7.5-11.2	129	38	28	19.4-36.5	128	86	72	63.9-80.2
\$15,000 - \$24,999	2,392	229	8	7.0-9.5	229	68	30	22.9-36.8	229	159	67	59.7-74.3
\$25,000 - \$49,999	4,136	240	6	4.8-6.4	240	71	31	24.2-37.8	240	155	64	57.1-71.0
\$50,000 - \$74,999	1,809	66	4	2.7-4.6	66	18	31	17.5-44.0	66	49	73	60.4-85.8
\$75,000 +	1,602	51	3	2.1-4.0	51	10	24	8.1-40.0	51	38	70	54.4-86.2
<b>Race:</b>												
White	12,031	788	6	5.3-6.2	788	230	30	26.4-33.9	786	534	67	63.7-71.1
African American	1,930	257	11	9.7-13.1	257	96	39	31.1-46.4	256	176	70	63.0-77.0
Asian American	280	5	2	0.0-3.8	5	#	#	#	5	#	#	#
Native American	231	40	14	7.4-20.7	40	#	#	#	40	#	#	#
Hispanic Origin	2,323	162	7	5.4-7.9	162	40	27	18.2-35.9	161	123	71	61.5-80.4
<b>Place of Residence:</b>												
Rural	7,258	520	6	5.6-6.8	520	157	32	26.9-36.1	518	359	69	64.7-73.7
Urban	5,786	341	5	4.7-6.0	341	96	30	24.1-35.9	341	228	66	59.4-71.6

NOTE: 'Number' and 'Percent' exclude missing, don't know, and refused responses.

\* Among respondents who have diabetes.

# - Data not reported due to N < 50.

**TABLE 20**  
**Diabetes Management**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAN)**

	Hemoglobin A-1-C Test 1 to 4 Times in Past 12 Months *				Did Not Have Feet Examined by Health Professional in Past 12 Months*				Ever Taken a Diabetes Management Class*			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	804	664	82	79.2-85.3	833	261	31	27.0-34.1	857	498	59	55.1-62.6
<b>Gender:</b>												
Male	340	277	82	77.6-86.6	349	101	29	23.3-33.8	359	220	63	57.7-68.8
Female	464	387	82	78.3-86.5	484	160	33	27.9-37.4	498	278	54	49.4-59.4
<b>Age:</b>												
18-29	17	#	#	#	17	#	#	#	18	#	#	#
30-44	69	56	79	67.2-90.2	70	22	36	22.5-48.9	70	42	60	46.5-72.9
45-64	323	283	88	84.0-91.8	333	89	25	19.8-29.8	339	219	65	59.6-71.1
65 +	388	304	77	72.1-81.8	406	142	36	30.5-41.1	423	223	52	46.7-57.4
<b>Education:</b>												
<High School	106	82	79	70.0-87.7	110	47	44	33.2-54.8	116	49	40	29.7-49.9
High School	328	264	80	74.6-84.7	339	106	31	25.5-36.9	347	194	57	51.2-63.2
Some College	218	182	83	77.9-88.9	227	60	26	19.7-32.4	233	143	64	57.1-70.9
College Degree	151	135	89	82.7-94.7	155	47	26	18.7-33.4	159	111	69	60.5-77.0
<b>Income:</b>												
<\$15,000	122	97	79	70.8-87.6	124	42	32	22.7-41.6	127	60	44	34.6-54.2
\$15,000 - \$24,999	209	164	75	68.1-82.4	225	70	33	25.4-39.8	229	131	53	45.4-60.6
\$25,000 - \$49,999	226	187	83	77.8-88.4	230	62	25	18.6-30.7	238	147	62	54.8-68.9
\$50,000 - \$74,999	65	57	86	76.0-95.4	66	25	37	24.1-49.6	66	46	77	66.7-87.1
\$75,000 +	50	46	89	79.0-99.8	49	#	#	#	51	37	75	62.0-87.0
<b>Race:</b>												
White	734	612	83	80.2-86.4	763	236	30	26.5-33.8	784	456	59	54.8-62.7
African American	217	172	82	75.8-88.5	225	48	22	15.0-29.0	232	153	65	57.0-73.2
Asian American	5	#	#	#	5	#	#	#	5	#	#	#
Native American	31	#	#	#	37	#	#	#	37	#	#	#
Hispanic Origin	125	74	57	45.7-68.1	128	52	50	38.5-61.2	137	79	57	45.9-67.8
<b>Place of Residence:</b>												
Rural	479	379	78	73.8-82.4	499	174	35	30.4-39.9	517	269	53	48.3-58.0
Urban	325	285	88	83.7-91.9	334	87	24	19.1-29.4	340	229	67	60.9-72.7

NOTE: 'Number' and 'Percent' exclude missing, don't know, and refused responses.

\* Among respondents who have diabetes.

# - Data not reported due to N < 50.

# ARTHRITIS

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According to the National Institute of Arthritis and Musculoskeletal and Skin Diseases, arthritis and related conditions affect about 43 million Americans. By 2020, it is estimated that 60 million Americans will be affected by arthritis.

Osteoarthritis is the most common type of arthritis, affecting about 21 million adults in the United States. It is characterized by deterioration of the cartilage cushioning the ends of the bones within the joint. The tissue lining of the joint can become inflamed, the ligaments looser, and the muscles weaker, resulting in pain when the joint is used.

Common symptoms of arthritis include: swelling in one or more joints; stiffness around the joints that lasts for at least one hour in the early morning; constant or recurring pain or tenderness in a joint; difficulty using or moving a joint normally; and warmth and redness in a joint.

Arthritis is the leading cause of disability in the United States and ranks second only to heart disease as a cause of work disability. It also limits everyday activities and adversely affects the physical and mental health of the people who have it.

## **Definitions**

Have probable arthritis: Had symptoms of pain, aching, or stiffness in or around a joint during the past 30 days and joint symptoms first began more than three months ago.

Have diagnosed arthritis: Have ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.

## **Prevalence of Arthritis**

### **“Probable” Arthritis**

In Nebraska, 43 percent of adults responding to the 2001-2003 BRFSS reported having symptoms of pain, aching, or stiffness in or around a joint during the past 30 days (Table 21). In 2002-2003, 82 percent said these joint symptoms first began more than three months ago and are considered to have “probable arthritis.” Thus, applying this prevalence estimate to the proportion who had joint symptoms in the past month, approximately 35 percent of adults could be said to have probable arthritis.

Of respondents who had joint symptoms for at least three months, 69 percent reported that they had ever seen a doctor or other health professional for these symptoms.

### **Diagnosed Arthritis**

In 2001-2003, all respondents were asked if they had ever been told by a doctor or other health professional that they have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. One-fourth (25 percent) said they had (Table 21).

Altogether, 45 percent of respondents to the 2002-2003 BRFSS had either “probable” or “diagnosed” arthritis.

### **Trend in Diagnosed Arthritis Prevalence**

No trend data are available due to changes in questions used to measure prevalence of arthritis.

### **Who Has Diagnosed Arthritis?**

In 2001-2003, women (28 percent) were significantly more likely than men (21 percent) to indicate they had ever been told they have arthritis or a related condition.

Prevalence of diagnosed arthritis increased significantly with advancing age group (Figure 48). More than one-half (55 percent) of respondents aged 65 and older were told they have arthritis, compared to one-third (32 percent) of 45- to 64-year-olds. Far fewer younger persons have arthritis (14 percent of respondents aged 30 to 44 and five percent of those aged 18 to 29).

High school graduates (29 percent) and respondents who had not finished high school (33 percent) were significantly more likely to report being diagnosed with arthritis than respondents with more education. Persons with some college or technical school (23 percent) were also significantly more likely to have arthritis than college graduates (19 percent).

A similar pattern is evident by annual income of respondents. A significantly greater proportion of respondents with household incomes below \$25,000 per year (33 to 35 percent) indicated they had been diagnosed with arthritis, compared to respondents in the \$25,000-\$49,999 income bracket (23 percent) and the \$50,000 and over bracket (18 to 19 percent).

Whites (26 percent) and African Americans (27 percent) were significantly more likely than Asian Americans (11 percent) and Hispanic Americans (9 percent) to say that a doctor or other health professional told them they have arthritis.

Rural Nebraskans (28 percent) were significantly more likely than urban Nebraskans (22 percent) to have diagnosed arthritis.

### **Activity Limitation due to Arthritis**

Respondents with “probable arthritis” or “diagnosed arthritis” (as defined above) will be considered to have arthritis for the remaining questions in this section of the report.

Persons with arthritis were asked, “Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?” In 2001-2003, 30 percent of respondents with arthritis reported activity limitations due to this condition (Table 21).

Persons aged 65 and older (38 percent) were significantly more likely than persons in each of the younger age groups to report activity limitations due to arthritis. Respondents aged 45 to 64 with arthritis (32 percent) were also significantly more likely than 30- to 44-year-olds (24 percent) and 18- to 29-year-olds (19 percent) with this condition to say their activities were limited in any way by arthritis.

The proportion of respondents experiencing activity limitations due to arthritis was significantly higher among persons with less than a high school education (40 percent) than among persons with some college/technical school (29 percent) or those with college degrees (25 percent). The proportion of high school graduates with activity limited by arthritis (32 percent) was also significantly higher, compared to college graduates.

Activity limitations due to arthritis were significantly more common among respondents with annual incomes below \$15,000 (47 percent) or \$15,000 to \$24,999 (37 percent) than among respondents with incomes of \$25,000 or higher (22 to 25 percent).

Native Americans (57 percent) and African Americans (40 percent) with arthritis were significantly more likely than white respondents with this condition (30 percent) to report being limited in any way in any of their usual activities because of arthritis (Figure 49). The proportion of Native Americans with activity limitations was also significantly greater than the proportion of Hispanic Americans affected in this way by arthritis (29 percent).

No significant differences in prevalence of activity limitations due to arthritis were noted by gender or urban vs. rural residence of respondents.

Comparison of quality of life measures (reported in the “Health Status” section of this report) for persons with probable or diagnosed arthritis with measures for those who do not have arthritis reveal some differences (Figure 50). Among Nebraska 2002-2003 BRFSS respondents with arthritis, more than



one-fifth (21 percent) rated their own health as “fair” or “poor”. This proportion is three times as great as that for people who do not have arthritis (seven percent).

Nearly four out of ten persons with arthritis (38 percent) reported that they had experienced at least one day during the past month when their physical health was “not good”; the comparable figure for persons without arthritis was just 26 percent.

One-third of persons with arthritis (33 percent) stated that they had at least one day during the past 30 days when their mental health was “not good”. For persons without arthritis, this proportion was somewhat lower (27 percent).

Persons with arthritis (24 percent) were also much more likely to report being limited in their activities because of “physical, mental, or emotional problems” than were those who do not have this disease (7 percent).

### **Overall Ability Rating**

In 2002-2003, respondents with probable or diagnosed arthritis were also asked, “Thinking about your arthritis or joint symptoms, which of the following best describes you today?” Despite the fact that in an earlier question 30 percent said that they were limited in some way in their activities because of arthritis, 82 percent of all respondents with arthritis stated that they can do “everything I would like to do” (37 percent) or “most things I would like to do” (45 percent) (Figure 51). Fourteen percent indicated they can do “some things” and four percent can do “hardly anything” they would like to do.

### **Effect of Arthritis on Paid Work**

In 2002-2003, respondents aged 18 to 64 who have probable or diagnosed arthritis were asked, “Do arthritis or joint symptoms now affect whether you work, the type of work you do, or the amount of work you do?” (Respondents were told that this question refers to work for pay.) Of these respondents, 22 percent reported that arthritis did affect their work (Table 21).

Persons aged 30 to 44 (24 percent) and those aged 45 to 64 (23 percent) were significantly more likely than persons aged 18 to 29 (13 percent) to say that their arthritis or joint symptoms affected the type or amount of work they do or whether they work for pay.

A significantly greater proportion of respondents with less than a high school education (44 percent) stated that arthritis affected their ability to work, compared to respondents with more education. High school graduates (26 percent) were also significantly more likely than college graduates (13 percent) to say this condition has affected their work.

Significant differences were also evident by household income, with respondents in lower income brackets significantly more likely than those in higher income groups to state that arthritis or joint symptoms affect their ability to work.

Significantly greater proportions of Native Americans (51 percent), Hispanic Americans (42 percent), and African Americans (35 percent) all indicated that their arthritis affects whether they work for pay or the type and/or amount of work they are able to do, compared to white respondents (21 percent).

Rural residents (25 percent) were significantly more likely than urban residents (19 percent) to report that arthritis affects their ability to work.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2002-2003	US BRFSS 2002-2003	US 2010 Target
Percent of adults aged 18+ with chronic joint symptoms who experience limitation in activity due to arthritis	35% *	30%	NA	21%
*Will be revised. Questions used to measure activity limitation have changed.				

## **Management of Arthritis**

### **Weight Loss**

In the 2002-2003 BRFSS, persons with arthritis were asked if a doctor or other health professional “ever suggested losing weight to help your arthritis or joint symptoms.” Altogether, only 17 percent of respondents said they had.

Women (19 percent) were significantly more likely than men (13 percent) in this study to have been advised to lose weight to help with their symptoms.

Native American (43 percent) and African American (27 percent) respondents with arthritis were significantly more likely than white respondents (16 percent) to say a doctor or other health professional suggested that they lose weight to improve their arthritis symptoms.

### **Exercise**

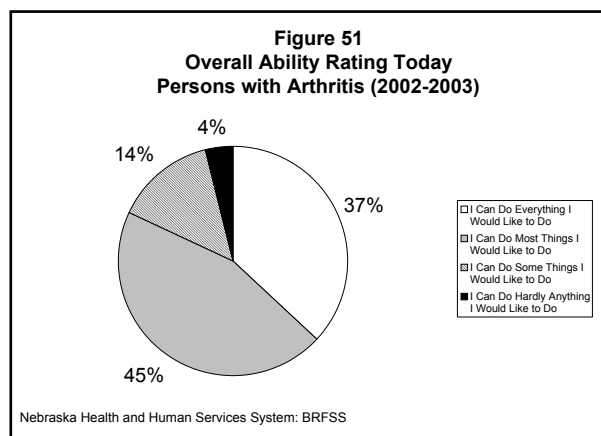
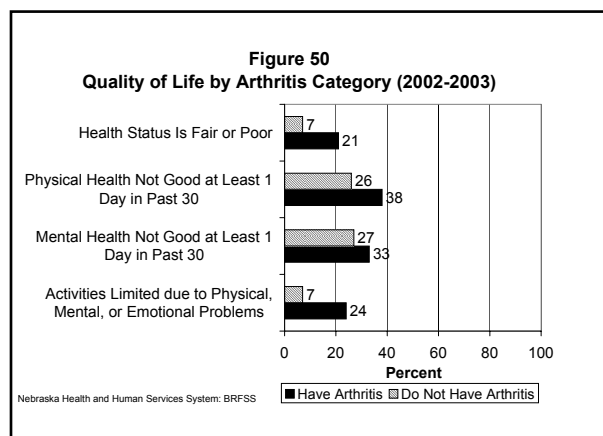
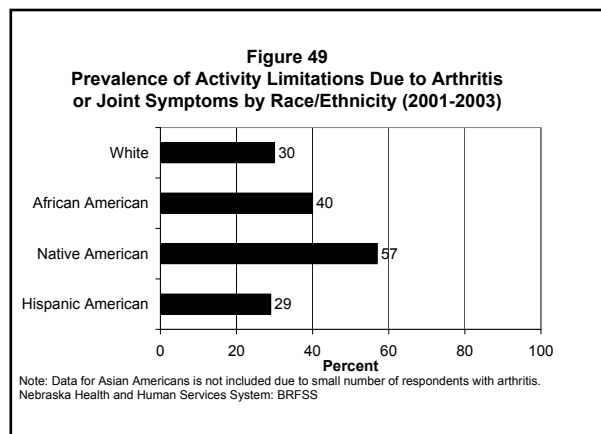
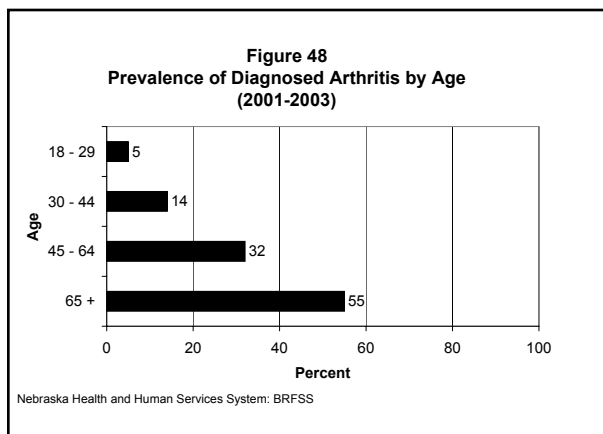
Respondents with arthritis were also asked whether or not a health professional ever suggested physical activity or exercise to help their joint symptoms. More than one-third (37 percent) of respondents said they had.

Females (41 percent) were significantly more likely than males (34 percent) to have been given this advice.

A significantly greater proportion of respondents aged 45 and older (40 to 42 percent) were given a recommendation to exercise in order to ameliorate their arthritis symptoms, compared to respondents aged 18 to 29 (27 percent).

### **Patient Education**

In 2002-2003, respondents with arthritis were also asked if they had ever taken an educational course or class to teach them how to manage problems related to their arthritis or joint symptoms. Very few of them (eight percent) reported that they had ever participated in such a class.



**TABLE 21**  
**Arthritis**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAN)**

	Pain, Aching, or Stiffness In or Around Joint in Past 30 Days				Told by Health Professional Have Arthritis				Have Limited Activity Due to Arthritis (Among Persons with Probable or Diagnosed Arthritis)				Effect of Arthritis on Paid Work (Among Persons Aged 18-64 with Probable or Diagnosed Arthritis)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	12,825	5,869	43	41.6-43.6	12,805	3,766	25	24.1-25.7	3,624	1,130	30	28.1-31.6	2,825	644	22	20.2-23.7
<b>Gender:</b>																
Male	4,919	2,108	41	38.9-42.0	4,911	1,214	21	19.9-22.3	1,270	380	29	26.1-31.8	1,079	237	21	18.7-24.1
Female	7,906	3,761	45	43.4-45.9	7,894	2,552	28	27.3-29.5	2,354	750	31	28.5-32.8	1,746	407	22	20.2-24.6
<b>Age:</b>																
18-29	1,969	519	26	23.8-28.5	1,969	97	5	3.5-5.8	275	50	19	13.4-25.0	299	48	13	8.9-16.8
30-44	3,530	1,372	39	36.8-40.4	3,524	493	14	12.4-15.0	763	189	24	20.6-27.6	872	203	24	20.6-27.4
45-64	4,068	2,172	52	49.7-53.2	4,063	1,379	32	30.7-33.9	1,388	440	32	29.0-34.6	1,654	393	23	21.1-25.7
65 +	3,186	1,783	55	52.7-56.7	3,176	1,784	55	52.6-56.5	1,187	449	38	34.8-41.0	N/A	N/A	N/A	N/A
<b>Education:</b>																
<High School	1,097	527	44	40.8-47.8	1,098	446	33	29.8-36.1	300	130	40	33.6-47.2	146	63	44	33.6-53.5
High School	4,390	2,072	43	40.8-44.2	4,380	1,520	29	27.4-30.4	1,309	435	32	29.0-34.7	926	250	26	23.2-29.5
Some College	3,715	1,706	43	41.4-45.2	3,709	1,023	23	21.8-24.9	1,040	309	29	25.5-31.9	862	207	22	19.1-25.1
College Degree	3,589	1,546	41	39.6-43.3	3,584	761	19	17.3-20.0	966	249	25	21.8-28.3	889	123	13	10.2-15.0
<b>Income:</b>																
<\$15,000	1,062	571	49	44.7-52.9	1,056	465	35	31.3-38.6	351	170	47	40.1-54.5	212	110	41	32.4-49.3
\$15,000 - \$24,999	2,365	1,185	46	43.5-48.6	2,364	903	33	31.0-35.6	784	293	37	32.4-40.7	444	142	32	26.3-37.1
\$25,000 - \$49,999	4,091	1,825	42	40.1-43.6	4,089	1,069	23	21.4-24.2	1,107	287	25	22.4-28.1	968	224	23	20.3-26.3
\$50,000 - \$74,999	1,781	743	40	37.9-43.0	1,779	345	18	15.8-19.7	466	111	24	19.4-28.1	464	59	13	9.8-16.6
\$75,000 +	1,577	665	41	38.1-43.6	1,572	316	19	16.4-20.6	438	91	22	17.5-26.4	471	49	11	8.2-14.5
<b>Race:</b>																
White	11,839	5,516	44	42.8-44.9	11,825	3,547	26	24.7-26.5	3,441	1,069	30	28.0-31.6	2,647	579	21	19.1-22.6
African American	1,881	850	41	38.4-44.2	1,877	628	27	24.8-29.8	569	244	40	34.0-45.0	471	175	35	29.1-40.9
Asian American	275	81	31	23.9-38.3	272	28	11	5.9-15.4	38	#	#	#	36	#	#	#
Native American	226	111	45	36.1-54.0	226	79	30	22.1-37.4	75	39	57	42.8-71.9	69	36	51	35.0-66.7
Hispanic Origin	2,271	537	21	19.2-23.5	2,267	282	9	7.7-10.3	330	118	29	22.5-34.8	322	133	42	34.5-48.9
<b>Place of Residence:</b>																
Rural	7,136	3,339	44	42.7-45.3	7,128	2,294	28	26.3-28.6	2,069	686	32	29.4-34.0	1,536	392	25	22.1-27.0
Urban	5,689	2,530	41	39.5-42.5	5,677	1,472	22	20.6-23.0	1,555	444	28	25.0-30.2	1,289	252	19	16.4-21.4

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.  
# - Data not reported due to N < 50.

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# ASTHMA

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Asthma is a chronic inflammatory disease of the airways that is characterized by recurring symptoms such as wheezing, breathlessness, chest tightness, and coughing. In persons with asthma, the airways are more responsive than normal to various stimuli, such as pollen, cigarette smoke, respiratory infections, or exercise. When exposed to these stimuli, the airways narrow or become obstructed, which results in respiratory symptoms.

Asthma is a serious and growing health problem, with the number of persons who have the disease increasing rapidly over the last 20 years. About 20.3 million Americans report having asthma, including nine million children under age 18. It is estimated that 120,000 Nebraskans are affected by asthma, with more than 33,000 of them children. There are approximately 5,000 deaths nationwide from this disease each year. Asthma was the cause of 30 deaths in Nebraska in 2003.

## Definitions

Currently have asthma: “Yes” to the question, “Have you ever been told by a doctor, nurse, or other health professional that you had asthma?” and “Yes” to the question, “Do you still have asthma?”

## Prevalence of Asthma

In the 2001-2003 Nebraska BRFSS, 10 percent of adults aged 18 and older stated that a doctor or other health professional had at some time told them they had asthma (Table 22). When asked whether or not they still have asthma, the majority (70 percent) said they do. This translates into a current prevalence estimate of about seven percent among Nebraska adults.

## Trend over Time

Only five years of asthma prevalence data (1999-2003) are currently available from the Nebraska BRFSS (Figure 52). Lifetime prevalence estimates (i.e., ever told have asthma) range from 8 to 11 percent over this period, with current prevalence ranging from 6 to 7 percent over this five-year period.

## Who in Nebraska Has Asthma?

Although men and women were about equally likely to say they had ever been told they have asthma, women (75 percent) were significantly more likely than men (63 percent) to report that they still have this disease. Thus, eight percent of all adult women and six percent of all men surveyed currently have asthma (Table 22).

Younger respondents aged 18 to 29 (13 percent) were significantly more likely than older respondents (nine percent) to state that a health professional ever told them they had asthma. However, differences in current prevalence of asthma were not significant among the four age groups shown in Table 22.

The proportion of respondents with household incomes under \$15,000 per year who currently have asthma (10 percent) is significantly greater than the proportion among respondents with incomes of \$25,000 or more annually (5 to 6 percent).

African American adults (12 percent) are significantly more likely to currently have asthma than white (seven percent) or Hispanic (3 percent) adults. Whites are also significantly more likely than Hispanic Americans to report that they currently have this disease.

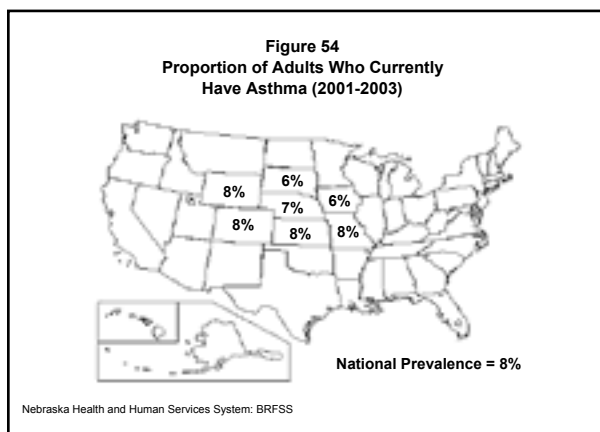
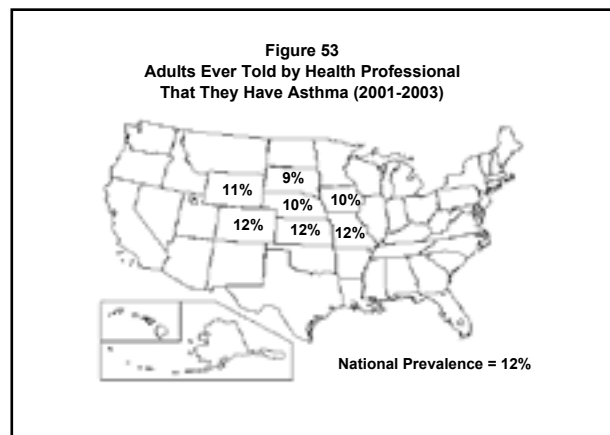
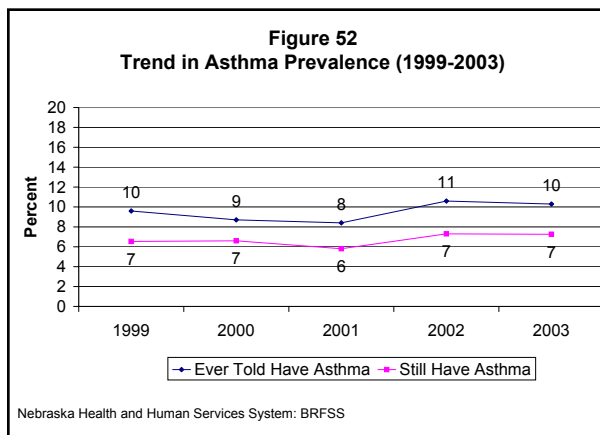
Urban residents (eight percent) are significantly more likely than rural residents (six percent) to say they now have asthma.

No significant differences in asthma prevalence were identified by educational level of respondents.

## Nebraska and the Nation

The proportion of adults in Nebraska who reported they were ever told by a health professional that they have asthma (10 percent) is slightly lower than the national median of 12 percent for 2001-2003 (Figure 53). Of the surrounding states, only South Dakota reported a lower “lifetime prevalence” of asthma (nine percent) than Nebraska.

Current asthma prevalence for Nebraska adults (seven percent) was one percentage point lower than the national median (eight percent). Current prevalence of asthma was lower in South Dakota and Iowa (six percent each) than in Nebraska. The remaining four states reported rates of eight percent in 2001-2003 (Figure 54).



<b>TABLE 22</b> <b>Asthma Prevalence</b> <b>Nebraska Adults, 2001-2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Ever Told You Have Asthma				Ever Told Have Asthma and Still Have It			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	13,045	1,238	10	9.2-10.4	13,021	879	7	6.2-7.2
<b>Gender:</b>								
Male	5,022	419	9	8.1-10.1	5,016	269	6	4.9-6.5
Female	8,023	819	10	9.6-11.2	8,005	610	8	7.0-8.3
<b>Age:</b>								
18-29	1,998	251	13	10.9-14.7	1,995	167	8	6.5-9.6
30-44	3,595	305	9	7.6-9.8	3,583	215	6	4.9-6.6
45-64	4,138	402	9	8.2-10.1	4,132	285	7	5.9-7.5
65 +	3,230	274	9	7.6-9.9	3,227	206	7	5.5-7.5
<b>Education:</b>								
<High School	1,121	105	9	7.0-11.2	1,120	83	7	5.1-8.2
High School	4,462	407	10	8.6-10.9	4,457	295	7	5.8-7.8
Some College	3,779	418	11	10.0-12.4	3,768	279	7	6.4-8.4
College Degree	3,644	303	8	7.4-9.5	3,637	218	6	5.0-6.7
<b>Income:</b>								
<\$15,000	1,076	153	14	11.0-17.7	1,074	120	10	7.4-13.4
\$15,000 - \$24,999	2,392	256	11	9.8-13.0	2,390	188	8	6.7-9.3
\$25,000 - \$49,999	4,137	370	9	8.1-10.1	4,129	263	6	5.5-7.3
\$50,000 - \$74,999	1,808	158	9	7.8-10.9	1,803	102	6	4.8-7.2
\$75,000 +	1,602	131	8	6.3-9.1	1,599	87	5	4.0-6.3
<b>Race:</b>								
White	12,032	1,122	10	8.9-10.2	12,009	799	7	6.0-7.1
African American	1,928	283	17	14.2-19.5	1,924	210	12	9.9-14.6
Asian American	281	27	10	4.6-14.7	281	16	7	2.0-11.6
Native American	230	38	14	8.5-19.8	230	30	10	5.4-14.8
Hispanic Origin	2,325	132	5	3.9-6.1	2,323	95	3	2.3-4.1
<b>Place of Residence:</b>								
Rural	7,259	624	9	7.9-9.4	7,246	440	6	5.3-6.6
Urban	5,786	614	11	10.0-12.2	5,775	439	8	6.7-8.5
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.								

# SKIN CANCER

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Cancer of the skin is the most common of all cancers. More than one million cases of non-melanoma and at least 53,000 cases of melanoma skin cancer occur every year in the United States. Melanoma is the most serious form of skin cancer. It accounts for about five percent of skin cancer diagnoses, but 71 percent of all skin cancer deaths. In Nebraska, there were 243 cases of melanoma diagnosed in 2001 and 3.0 deaths due to melanoma per 100,000 population (53 deaths).

Melanomas frequently start out as small, mole-like growths that change color or get larger. Recognition of changes in the skin or appearance of new growths is the best way to detect early skin cancer. Adults should practice skin self-examination regularly and have any suspicious areas evaluated promptly by a physician.

To lessen the chances of developing skin cancer, the American Cancer Society recommends avoiding or limiting exposure to the sun when its ultraviolet (UV) rays are the strongest (during the midday hours). Wearing protective clothing and use of a sunscreen with a solar protection factor (SPF) of 15 or higher is also advisable. Tanning lamps and booths are another source of UV radiation and should be avoided.

Since there is a possible link between severe sunburns in childhood and increased risk of melanoma later in life, it is particularly important to protect children from excessive sun exposure.

## Definition

Had a recent sunburn: “Yes” to the question, “Have you had a sunburn within the past 12 months?”  
Sunburns include “any time that even a small part of your skin was red for more than 12 hours.”

Questions about prevalence of sunburn among adults were asked in the 1999 BRFSS and in the 2003 study, but not in the three intervening years.

## Prevalence

Overall, 42 percent of Nebraska adults aged 18 and older indicated they had gotten a sunburn in the past year (Table 23).

Of the respondents who had been sunburned, one-third (32 percent) said it had happened only once in the past 12 months, while 31 percent reported two such sunburns (Figure 55). About one-fourth (26 percent) stated they had gotten sunburned three to five times, while 10 percent mentioned six or more sunburns in the past year.

## Who’s at Risk in Nebraska?

Men (47 percent) were significantly more likely than women (38 percent) to report having at least one sunburn in the past year (Table 23).

Of those who reported sunburns, men (13 percent) were significantly more likely than women (7 percent) to say they had six or more sunburns in the past 12 months.

Recent sunburns were much more common in the younger age brackets, with the majority of respondents under age 45 reporting at least one sunburn in the past year (Figure 56). Sixty percent of 18- to 29-year-olds and 54 percent of 30- to 44-year-olds had gotten sunburned during this time period. These rates are significantly higher than those reported by persons aged 45 to 64 (39 percent) or 65 and older (9 percent).

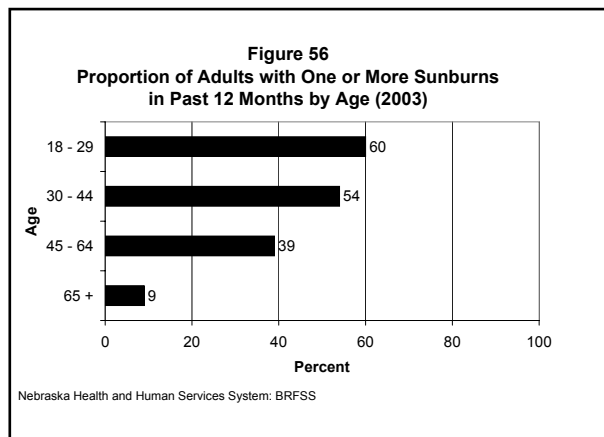
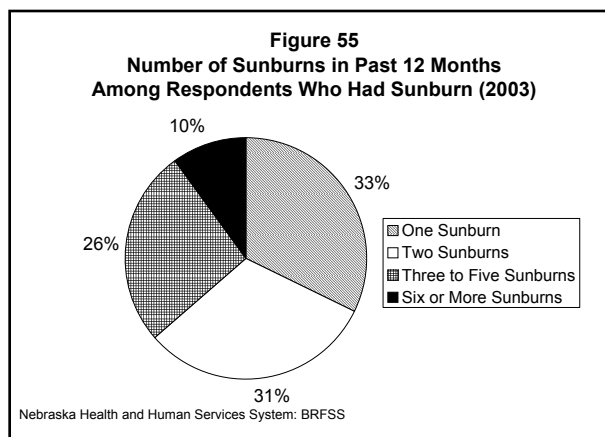
Respondents who had some college or technical training (46 percent) or had graduated from college (48 percent) were significantly more likely than those with less education to report having a sunburn in the last year. Thirty-nine percent of high school graduates and 24 percent of respondents with less than a high school education stated they had gotten sunburned in the last 12 months.



A similar pattern was evident by annual household income of respondents. The proportion of respondents with incomes of \$25,000 or more who reported getting a sunburn ranged from 45 to 51 percent. These prevalence rates are significantly higher than the rate for respondents earning less than \$15,000 annually (28 percent) or the rate for those earning \$15,000 to \$24,999 per year (33 percent).

A significantly greater proportion of white Nebraskans (45 percent) indicated they had at least one sunburn in the past 12 months, compared to African Americans (5 percent), Asian Americans (12 percent), Hispanic Americans (16 percent), and Native Americans (25 percent).

No difference in prevalence of sunburn was noted by place of residence.



<b>TABLE 23</b> <b>Sunburns</b> <b>Nebraska Adults, 2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>				
	Had a sunburn in past 12 months			
	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	4,959	1,860	42	40.5-43.7
<b>Gender:</b>				
Male	1,946	818	47	44.2-49.2
Female	3,013	1,042	38	35.8-39.8
<b>Age:</b>				
18-29	692	415	60	55.4-63.8
30-44	1,357	713	54	51.0-56.8
45-64	1,658	621	39	36.4-41.7
65 +	1,227	102	9	7.1-10.6
<b>Education:</b>				
<High School	420	75	24	18.2-29.0
High School	1,670	549	39	35.9-41.5
Some College	1,397	578	46	42.9-49.0
College Degree	1,462	657	48	45.3-51.1
<b>Income:</b>				
<\$15,000	407	82	28	21.5-34.5
\$15,000 - \$24,999	873	229	33	29.0-37.3
\$25,000 - \$49,999	1,600	651	45	41.8-47.3
\$50,000 - \$74,999	732	376	54	49.7-57.6
\$75,000 +	680	335	51	46.8-55.0
<b>Race:</b>				
White	4,588	1,806	45	43.0-46.3
African American	1,003	48	5	3.0-6.3
Asian American	128	17	12	4.8-18.4
Native American	121	28	25	12.8-37.2
Hispanic Origin	1,209	203	16	13.3-18.8
<b>Place of Residence:</b>				
Rural	2,752	1,003	42	39.7-44.0
Urban	2,207	857	42	40.0-44.8
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.				

# INJURY PREVENTION

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## **SEATBELT USAGE**

There were 293 people killed and an additional 21,984 people injured in motor vehicle crashes in Nebraska in 2003. Safety belts, when worn correctly, are the most effective way to reduce risk of death and serious injury in a motor vehicle crash. The Nebraska Office of Highway Safety states that, in 2003, 73 percent of all vehicle occupant fatalities occurred among persons who were not wearing their safety belts.

Passive restraints, such as airbags, which require no occupant action to be put into use, are becoming standard equipment for drivers and front seat passengers in newer vehicles. However, seatbelts must still be used along with airbags to provide effective protection. Nebraska has a mandatory seat belt law that went into effect January 1, 1993.

Safety belt questions were asked in 2002 only.

### **Definition**

Not at Risk: “Always” use a safety belt when driving or riding in a car.

At Risk: “Nearly always”, “sometimes”, “seldom”, or “never” use a safety belt when driving or riding in a car.

### **Current Prevalence**

More than two-thirds of adult Nebraskans surveyed in the 2002 BRFSS (69 percent) reported that they “always” use a safety belt when driving or riding in a car (Figure 57). Thirteen percent said they “nearly always” do, while eight percent indicated they only use safety belts “sometimes.” Five percent each stated they “seldom” or “never” use these safety restraints when driving or riding in a motor vehicle.

### **Trend over Time**

Safety belt questions were only asked in three of the last ten years. In 1995, 53 percent of respondents stated that they always wear a safety belt when driving or riding in a motor vehicle. In 1997, 58 percent reported always using these restraints. In 2002, the proportion always wearing safety belts increased to 69 percent.

### **Who “Always” Wears Safety Belts in Nebraska?**

Three-fourths of women aged 18 and older (76 percent) indicated that they always wear their seatbelts when driving or riding in a motor vehicle (Table 24). This proportion is significantly greater than the 61 percent recorded for men in the 2002 BRFSS.

Nebraskans aged 65 and older (73 percent) were significantly more likely than those aged 45 to 64 (66 percent) to say they always wear their seatbelts.

College graduates (75 percent) were significantly more likely than respondents with less education to always use these safety restraints while riding in or driving a motor vehicle. Only 59 percent of respondents with less than a high school education and 66 percent of high school graduates gave this response.

Compared to Nebraskans living in rural counties (62 percent), a significantly greater proportion of urban residents always wear their seatbelts (77 percent).

No significant differences were noted in seatbelt use rates by household income or by race/ethnic origin of respondents.

## Nebraska and the Nation

On average, 77 percent of American adults participating in the 2002 BRFSS said they always use seatbelts when driving or riding in a car (Figure 58). Nebraska (69 percent) ranked well below the national median, as did respondents in South Dakota (55 percent), Wyoming (58 percent), Kansas (67 percent) and Missouri (67 percent). Of the six surrounding states, only Colorado (79 percent) reported a seatbelt use rate exceeding the national median.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2002	US BRFSS 2002	US 2010 Target
Percent of adults aged 18+ who always or nearly always wear safety belts in a motor vehicle	92%	81%	87%	92%

## FALLS

Falls are the second leading cause of unintentional injury deaths in Nebraska, accounting for 136 deaths (6.9 deaths per 100,000 population) in 2003. Nationwide, falls are the leading cause of deaths for adults aged 65 and older; they are also the most common cause of injuries and hospital admissions due to trauma for elderly persons. It is estimated that 35 to 40 percent of persons aged 65 and older fall at least once each year.

Falls are also an important cause of work-related injuries and deaths. In addition, falls are the leading cause of non-fatal unintentional injuries and emergency department visits for children under age 15 years.

Questions about falls were asked only in the 2003 BRFSS.

## Definition

Respondents aged 45 and older were read the following statement: “By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level.” They were then asked, “In the past three months, have you had a fall?”

## Current Prevalence

Altogether, only 12 percent of individuals aged 45 and older said they had a fall in the past three months (Table 24).

The proportion of respondents who had a fall during this time period varied somewhat by annual household income, with falls more common among respondents in the lower income brackets. Persons with incomes of \$75,000 or higher were significantly less likely to have experienced a fall in the last three months than persons (6 percent) in the lowest income brackets, where 13 to 20 percent of respondents reported a fall. Respondents earning \$50,000 to \$74,000 per year were also significantly less likely (10 percent) than those earning less than \$15,000 annually (20 percent) to have fallen in the last three months.

No significant differences were found by gender, age, educational level, race/ethnicity, or rural/urban residence of respondents.

## Injuries Due to Falls

Respondents who reported a fall in the last three months were then asked if they were injured. “Injured” was defined as, “the fall caused you to limit your regular activities for at least a day or to go see a doctor.”

Of the 12 percent of respondents aged 45 or older who had fallen, 29 percent stated that they had been injured.

Although there were some variations in injury rates due to falls by gender, age, education, income, race/ethnicity, and place of residence, none were found to be significant.

## **FIREARM SAFETY**

Americans possess more than 223 million firearms, including 77 million handguns. Nearly half of all homes in the United States have some type of firearm and one in four homes have a handgun.

In 2002, there were 30,242 firearm-related deaths in the United States—9.2 deaths per 100,000 population. In 1999-2000, 58 percent of firearm deaths were suicides, 38 percent were homicides and three percent were unintentional injury deaths.

Exposure to guns and access to a loaded firearm pose a particular risk of firearm-related death and injury to children as a result of unintentional injuries or violence-related causes. Each day, 15 children aged 19 and under in the United States are killed with firearms.

Efforts to promote proper storage of firearms in homes would reduce the likelihood of both unintentional injuries and injuries from violence-related causes. Injury prevention experts recommend that gun owners should always store firearms unloaded and locked up, with ammunition locked in a separate location, out of reach of children. Gun owners should also use trigger locks, load indicators and other safety devices on all firearms.

## **Presence of Firearms in the Home**

### **Definition**

Respondents were told that the following firearms questions were being asked because of interest in firearm-related injuries. They were instructed to include weapons such as pistols, shotguns, and rifles but not BB guns, starter pistols, or guns that cannot fire. Firearms that are kept in a garage, outdoor storage area, or motor vehicle were to be counted. Respondents were asked, “Are any firearms kept in or around your home?”

### **Current Prevalence**

Altogether, 40 percent of all respondents to the 2001-2002 Nebraska BRFSS stated that firearms were kept in or around their homes (Table 24).

### **Trend over Time**

No trend data are available since these questions were not asked in previous years in the Nebraska BRFSS.

### **Who Has Firearms In or Around Their Homes?**

Nearly one-half of all male respondents (48 percent) reported having one or more firearms in or around their homes, compared to about one-third of female respondents (34 percent). This difference is statistically significant.

Respondents aged 45 to 64 (50 percent) were significantly more likely than respondents in both older and younger age groups to have firearms in their homes (Figure 59). Respondents in the youngest age group (18 to 29) were significantly less likely (27 percent) than all other groups to keep firearms in or around their homes.

Persons who had not completed high school (29 percent) were significantly less likely to report the presence of firearms in their homes, compared to high school graduates (42 percent), college graduates (40 percent), or persons with some college or technical training (42 percent).

The proportion of respondents with firearms in or around their homes was significantly higher among those with household incomes of \$25,000 or higher (46 to 52 percent) than among those with incomes of \$15,000 to \$24,000 (33 percent) or under \$15,000 (22 percent).

A significantly greater proportion of rural residents reported the presence of firearms in their homes, compared to urban Nebraskans. In fact, prevalence was nearly double in rural households (52 percent vs. 27 percent for urban households).

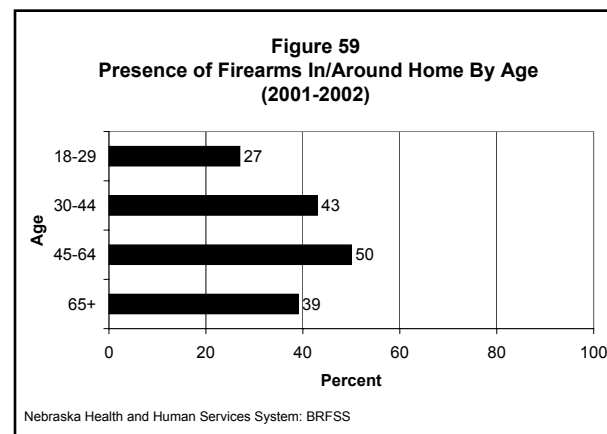
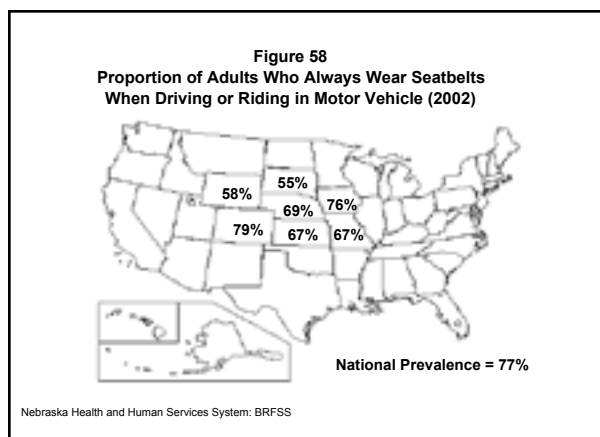
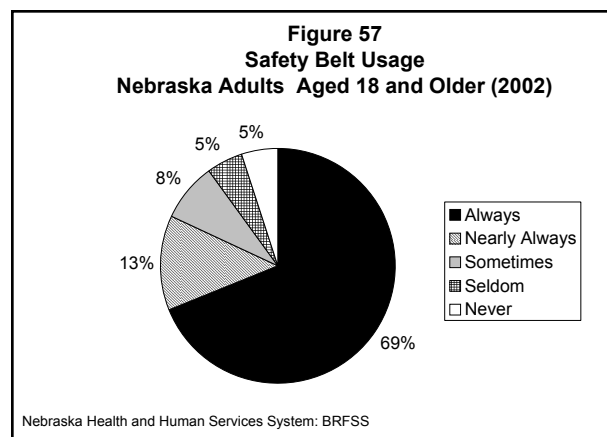
White Nebraskans (43 percent) were about twice as likely as Native Americans in the state (22 percent) to say they keep firearms in or around their homes. Even greater differences in prevalence were found between white respondents and Hispanic Americans (11 percent), African Americans (13 percent) and Asian Americans (17 percent) in Nebraska. Differences in prevalence between white respondents and each of the other racial/ethnic groups in this study were significant.

### Presence of Loaded and/or Unlocked Firearms

Respondents who reported the presence of firearms in or around their homes were asked whether or not any of these weapons are “now loaded”. Overall, 10 percent of these respondents said any of their firearms were currently loaded.

Men (14 percent) were significantly more likely than women (4 percent) to indicate the presence of loaded firearms in or around their homes.

BRFSS respondents who reported having loaded firearms in their homes were then asked if any of these loaded weapons were also unlocked. (The interviewer explained that “unlocked” means “you do not need a key or combination to get the gun or to fire it. We don’t count a safety as a lock.”) More than one-half of the respondents who indicated they have a loaded firearm (57 percent) stated that this weapon was also unlocked. Thus, about five percent of all respondents who have firearms in or around their homes reported that they currently have them loaded and unlocked.



**TABLE 24**  
**Injury Prevention**  
**Nebraska Adults**  
**(with 95% Confidence Intervals--SUDAN)**

	Always Use Seat Belts (2002 Only)				Fall in Past 3 Mos.--Age 45+ (2003 Only)				Firearms Kept In or Around Home (2001-2002)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	4,367	3,075	69	67.0-70.4	2,868	353	12	10.8-13.4	7,788	3,056	40	39.2-41.7
<b>Gender:</b>												
Male	1,640	996	61	57.8-63.4	1,092	145	12	10.3-14.4	2,927	1,481	48	45.9-50.1
Female	2,727	2,079	76	74.4-78.2	1,776	208	12	10.2-13.5	4,861	1,575	34	32.0-35.0
<b>Age:</b>												
18-29	628	432	67	62.7-71.7	NA	NA	NA	NA	1,278	357	27	24.4-30.2
30-44	1,232	884	70	67.3-73.4	NA	NA	NA	NA	2,150	894	43	40.5-45.3
45-64	1,343	916	66	63.0-69.0	1,649	189	11	9.5-12.8	2,374	1,129	50	47.8-52.4
65 +	1,140	828	73	69.6-75.4	1,219	164	14	11.5-15.7	1,943	668	39	36.0-41.1
<b>Education:</b>												
<High School	336	212	59	52.0-65.5	267	40	16	11.2-21.2	676	189	29	25.0-33.1
High School	1,463	993	66	63.5-69.4	1,135	143	12	10.2-14.3	2,686	1,122	42	40.1-44.5
Some College	1,300	900	68	64.5-70.8	734	84	11	8.5-13.2	2,298	951	42	39.5-44.4
College Degree	1,260	966	75	72.4-78.1	725	83	11	8.9-13.9	2,111	791	40	37.8-42.7
<b>Income:</b>												
<\$15,000	354	243	68	61.9-74.6	266	57	20	15.1-25.4	655	141	22	18.0-26.2
\$15,000 - \$24,999	870	598	67	62.6-71.2	556	70	14	10.7-17.4	1,483	455	33	29.7-35.6
\$25,000 - \$49,999	1,334	908	66	62.9-69.0	883	108	13	10.2-15.1	2,468	1,113	46	43.3-47.9
\$50,000 - \$74,999	638	448	68	64.3-72.6	368	36	10	6.9-13.8	1,049	504	49	45.7-52.5
\$75,000 +	529	411	75	70.6-79.5	369	27	6	3.7-8.6	890	452	52	48.0-55.6
<b>Race:</b>												
White	4,024	2,816	68	66.4-69.9	2,734	334	12	10.8-13.4	7,180	2,961	43	41.7-44.4
African American	524	373	71	65.6-75.8	606	66	11	8.0-14.8	890	134	13	10.1-15.3
Asian American	81	70	84	72.8-94.2	23	#	#	#	147	27	17	10.2-24.3
Native American	64	48	66	49.9-82.2	66	9	19	4.8-32.8	106	27	22	12.9-31.8
Hispanic Origin	620	442	71	66.0-75.2	287	39	12	6.9-16.9	1,069	116	11	8.5-13.0
<b>Place of Residence:</b>												
Rural	2,447	1,558	62	59.6-64.2	1,711	216	12	10.8-14.2	4,329	2,144	52	49.9-53.4
Urban	1,920	1,517	77	74.1-79.0	1,157	137	11	9.4-13.5	3,459	912	27	25.6-29.2

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.  
# - Data not reported due to N < 50.

# ALCOHOL MISUSE

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The Centers for Disease Prevention and Control report that there were approximately 75,000 preventable deaths and 2.3 million years of potential life lost (YPLL) due to excessive alcohol consumption in the United States in 2001. On average, people who die from alcohol-related causes lose about 30 years from their normal life expectancy.

Alcohol abuse is associated with injuries and deaths due to motor vehicle crashes, falls, fires, and drowning. Alcohol abuse is also a factor in a substantial proportion of homicides, suicides, domestic violence, and child abuse and neglect cases. Long-term heavy drinking can lead to heart disease, cancer, alcohol-related liver disease, and pancreatitis. Alcohol use during pregnancy is known to cause fetal alcohol syndrome, a leading cause of mental retardation.

## **ALCOHOL USE**

More than one-half (55 percent) of the respondents to the 2001-2003 Nebraska BRFSS reported consuming at least one drink of an alcoholic beverage (such as beer, wine, wine coolers, liquor or cocktails) during the past month. The proportion of respondents who described patterns of consumption indicating misuse of alcohol was much smaller.

## **BINGE DRINKING**

### **Definition**

Binge drinking: Five or more drinks of alcohol (beer, wine, wine coolers, cocktails, or liquor) on an occasion, one or more times during the past 30 days.

### **Current Prevalence**

Binge drinking was much more prevalent than either heavy drinking or drinking and driving among survey respondents (Figure 60). In 2001-2003, 17 percent of adults in Nebraska stated that they had five or more alcoholic drinks on at least one occasion during the past month. In contrast, only five percent reported heavy drinking and five percent (in 2002) said they drove a motor vehicle after drinking alcohol in the month prior to the interview.

### **Trend over Time**

Prevalence of binge drinking among adults aged 18 and older was estimated to be 18 percent in the 1987-1988 Nebraska BRFSS (Figure 61). Since then, the rate of binge drinking has remained steady at 16 to 17 percent.

### **Who's at Risk in Nebraska?**

Among adults aged 18 and older, men were significantly more likely than women to report binge drinking in the past month (Table 25). In fact, prevalence was nearly three times as high among men (25 percent) as among women (nine percent).

Significant differences were also seen in binge drinking rates by age of respondent, with younger respondents significantly more likely than older ones to report this pattern of alcohol consumption (Figure 62). More than one-third of 18- to 29-year-olds (34 percent) indicated they had consumed five or more alcoholic drinks on at least one occasion in the past month, compared to 19 percent of 30- to 44-year-olds. Significantly lower rates were reported for respondents aged 45 to 64 (11 percent) and those aged 65 and older (three percent).

The proportion of persons with some college or technical training who reported binge drinking (20 percent) was significantly higher than the proportions for other educational levels (13 to 16 percent).



White (17 percent) and Hispanic American (15 percent) adults were significantly more likely than Asian American (7 percent) or African American (11 percent) adults to binge drink.

Respondents living in urban counties (18 percent) were significantly more likely than residents of rural counties (16 percent) to have participated in binge drinking in the past month.

The proportion of respondents who reported binge drinking was fairly constant across all income levels.

## **Nebraska and the Nation**

Nebraska's binge drinking prevalence in 2003 (18 percent) exceeded the national median of 16 percent (Figure 63). Of the six states surrounding Nebraska, all except Kansas (14 percent) reported rates of binge drinking that were higher than the national median.

## **Binge Drinking Behavior**

In the 2003 Nebraska BRFSS, respondents who reported binge drinking in the past month were asked a series of questions about their binge drinking behavior.

### **Type of Alcoholic Drink**

Respondents were asked, "During the most recent occasion when you had five or more alcoholic beverages, about how many beers, including malt liquor, did you drink?" They were asked the same type of question about "glasses of wine, including wine coolers, hard lemonade, or hard cider" and about "drinks of liquor, including cocktails".

On their last binge drinking occasion, Nebraska adults averaged far more beers (6.0 beers) than they did liquor/cocktails (1.4 drinks) or glasses of wine/similar drinks (0.4 drinks) (Table 26).

The average number of beers consumed when binge drinking was significantly higher for males (6.6 beers) than it was for females (4.2 beers). However, the average number of glasses of wine consumed was significantly higher for females (0.6 drinks) than for males (0.3 drinks).

Persons in the 45-to-64 age bracket consumed significantly fewer beers (4.8) than persons aged 18 to 29 (6.8) or persons aged 30 to 44 (5.7) during their last occasion of binge drinking.

By race/ethnic origin of respondents who participated in binge drinking in the past month, Hispanic Americans (7.9 beers) drank significantly more beers during their last binge drinking occasion than whites (5.9) or African Americans (4.1). The average number of beers consumed by whites was also significantly higher than the number reported for African Americans.

On the other hand, Hispanic Americans who binge drank during the past month consumed significantly fewer drinks of liquor or cocktails (0.6 drinks) than whites (1.4) or African Americans (1.8).

### **Where Binge Drinking Occurred**

Respondents who had engaged in binge drinking during the past month were also asked, "During this most recent occasion, where were you when you did most of your drinking?" One-third (34 percent) stated they were at a bar or club, while 29 percent said they were at their home (Figure 64). More than one-fifth (22 percent) reported doing most of their drinking at "another person's home." Fewer respondents (six percent) said they did most of their drinking at a public place (such as a concert or sporting event) or at a restaurant (five percent).

Males were significantly more likely to report doing most of their binge drinking at their own home (32 percent), compared to 20 percent of females.

African Americans (48 percent) and Hispanic Americans (45 percent) who binge drank in the last month were significantly more likely than white respondents (28 percent) to say they did most of their binge drinking at their own home. White respondents (34 percent) were significantly more likely than Hispanic

respondents (14 percent) to report doing this drinking at a bar or club.

Other differences by gender, age, education, income, place of residence or race/ethnic origin were not significant.

### **How Respondent Procured Alcoholic Drinks**

Respondents who had participated in binge drinking in the last month were also asked, “During this most recent occasion, how did you get most of the alcohol?” (Figure 65). The majority of respondents “bought it at a liquor store, convenience store, or grocery store” (41 percent) or at a “restaurant, bar, or public place” (35 percent). Only one-fifth (20 percent) reported that “someone else bought it for me or gave it to me.”

Females (31 percent) were significantly more likely than males (16 percent) to indicate that someone else had gotten most of the alcohol when they were binge drinking. Males (45 percent) were significantly more likely than females (31 percent) to say they bought the liquor themselves at a liquor store, convenience or grocery store.

Young adults aged 18 to 29 (29 percent) were significantly more likely than older respondents (11 to 14 percent) to state that someone else had procured the liquor when they binge drank.

Hispanic American respondents (34 percent) were significantly more likely than African Americans (12 percent) to report that someone else bought liquor for them. Hispanic Americans were significantly less likely (19 percent) than white respondents (35 percent) to have gotten the alcohol at a bar, restaurant, or public place.

### **Binge Drinking and Driving a Motor Vehicle**

Respondents who reported binge drinking in the past month were asked, “Did you drive a motor vehicle, such as a car, truck, or motorcycle during or within a couple of hours of this occasion?” Altogether, about one-fifth (21 percent) of adult binge drinkers stated that they had driven a motor vehicle while they were binge drinking or within a couple of hours of it.

No significant differences in binge drinking and driving rates were found by gender, age, educational level, household income, race/ethnicity, or place of residence.

<b>NEBRASKA 2010 OBJECTIVES</b>				
	<b>Nebraska 2010 Target</b>	<b>Nebraska BRFSS 2001-2003</b>	<b>US BRFSS 2003</b>	<b>US 2010 Target</b>
Percent of adults aged 18+ who reported binge drinking in the past month	6%	17%	16%	6%

## **HEAVY DRINKING**

### **Definition**

Heavy Drinking: Consumed 60 or more alcoholic drinks in the past month.

### **Current Prevalence**

Five percent of Nebraska adults surveyed in 2001-2003 said they consumed 60 or more alcoholic drinks during the past month, categorizing them as “heavy drinkers” (Table 25).

### **Trend over Time**

Prevalence of heavy drinking decreased from seven percent in the 1987-1988 BRFSS to two or three

percent in the each of the next six studies (Figure 66). However, the heavy drinking rate increased to five percent in the current study.

### **Who's at Risk in Nebraska?**

Men (six percent) were significantly more likely than women (four percent) to report behavior that placed them in the “heavy drinker” category (Table 25).

Prevalence of heavy drinking was significantly higher for respondents aged 18 to 29 (11 percent) than for older respondents, where prevalence ranged from 2 percent in the 65-and-older group to 4 percent for 30- to 44-year-olds.

Respondents with some college or technical school (six percent) were significantly more likely than college graduates (four percent) to have engaged in heavy drinking in the past month. Five percent of respondents with a high school education or less reported heavy drinking.

The proportion of urban respondents who were classified as “heavy drinkers” (six percent) was significantly higher than the proportion of rural residents (four percent).

Although some variation in heavy drinking prevalence was noted by household income and race/ethnicity, differences were generally not large.

### **Nebraska and the Nation**

In 2003, prevalence of heavy drinking in Nebraska (five percent) was slightly less than the national median of six percent (Figure 67). Heavy drinking rates for the six surrounding states ranged from four percent for Kansas and South Dakota to seven percent for Wyoming.

## **DRINKING AND DRIVING**

### **Definition**

Drinking and Driving: During the past month, driving after “perhaps” having too much to drink.

### **Current Prevalence**

Overall, five percent of the respondents in the 2002 BRFSS reported that, in the month prior to the survey, they had driven a motor vehicle after having consumed too much alcohol (Table 25).

### **Trend over Time**

Between 1987-1988 and 1995, the proportion of adults reporting drinking and driving decreased from five percent to three percent (Figure 68). In 1997 and 1999, the rate increased to four percent and edged up one more percentage point to five percent in the 2002 study.

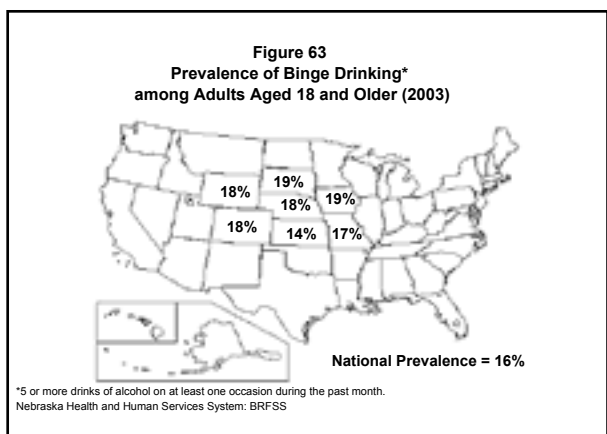
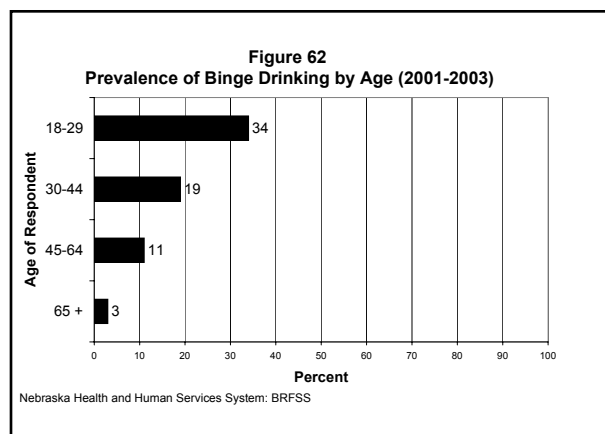
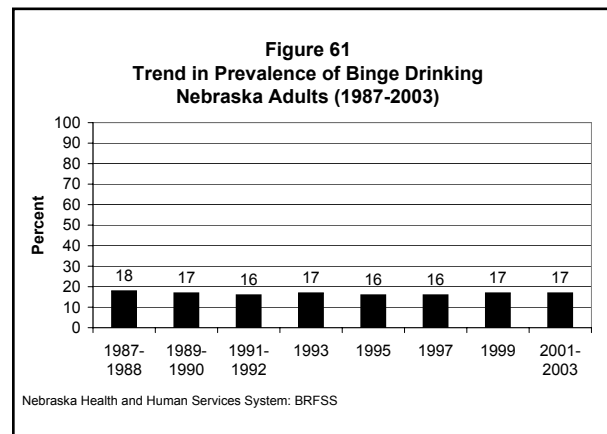
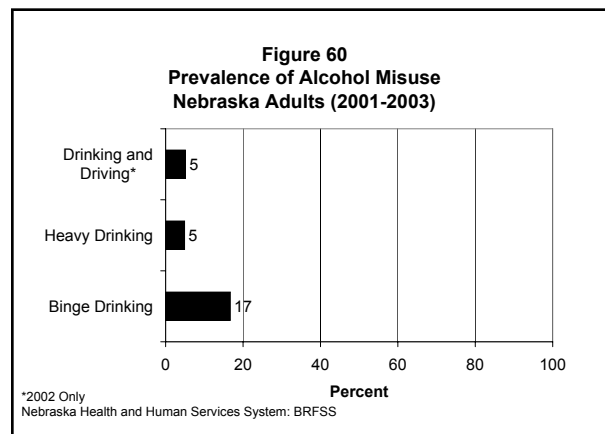
### **Who's at Risk in Nebraska?**

As with other measures of alcohol misuse, males (seven percent) were significantly more likely than females (three percent) to report drinking and driving in the past month (Table 25).

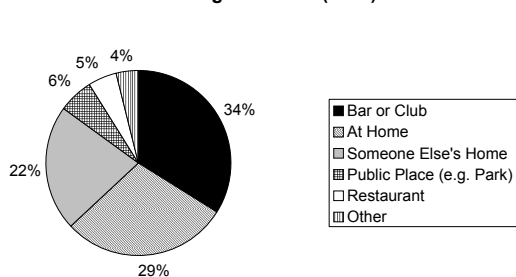
Young adults aged 18 to 29 were once again the age group most likely to say they had driven after having drunk too much alcohol (eight percent). They were significantly more likely than persons 45 and older to drink and drive.

No trends in prevalence of drinking and driving were identified by education, income, race/ethnicity, or place of residence of respondents.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2002	US BRFSS 2002	US 2010 Target
Prevalence of drinking and driving during the past month by adults aged 18 and older	1%	5%	NA	NA

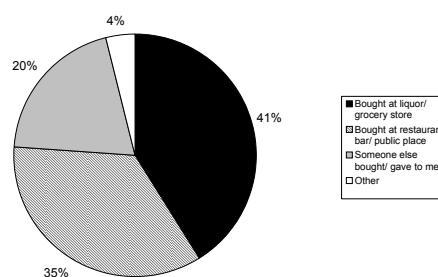


**Figure 64**  
Location Where Most Binge Drinking Occurred  
Nebraska Binge Drinkers (2003)



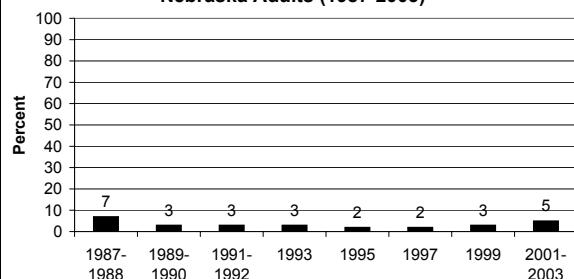
Nebraska Health and Human Services System: BRFSS

**Figure 65**  
How Respondent Procured Alcoholic Drinks  
Nebraska Binge Drinkers (2003)



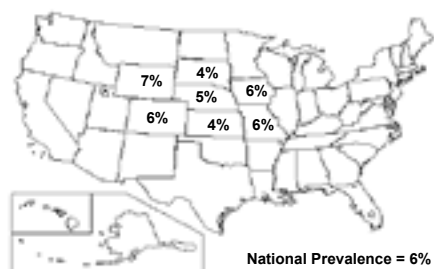
Nebraska Health and Human Services System: BRFSS

**Figure 66**  
Trend in Prevalence of Heavy Drinking  
Nebraska Adults (1987-2003)



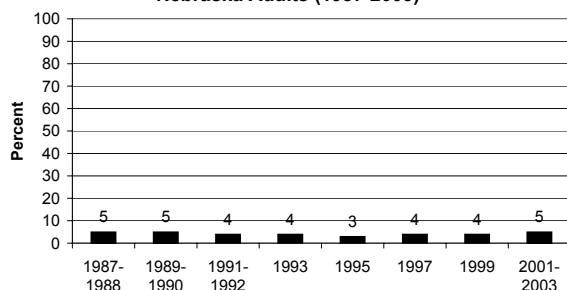
Nebraska Health and Human Services System: BRFSS

**Figure 67**  
Prevalence of Heavy Drinking\*  
Among Adults Aged 18 and Older (2003)



\*60 or more alcoholic drinks in the past month.  
Nebraska Health and Human Services System: BRFSS

**Figure 68**  
Trend in Prevalence of Drinking and Driving  
Nebraska Adults (1987-2003)



Nebraska Health and Human Services System: BRFSS

**TABLE 25**  
**Alcohol Consumption**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAN)**

	Binge Drinking				Heavy Drinking				Drinking and Driving (2002 Only)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	12,861	1,745	17	15.9-17.6	12,838	515	5	4.4-5.4	4,337	213	5	4.3-5.8
<b>Gender:</b>												
Male	4,920	1,126	25	23.8-26.8	4,908	276	6	5.5-7.3	1,619	126	7	5.7-8.3
Female	7,941	619	9	8.0-9.6	7,930	239	4	2.9-4.0	2,718	87	3	2.5-4.1
<b>Age:</b>												
18-29	1,972	607	34	31.4-36.8	1,960	173	11	8.7-12.2	623	55	8	5.7-10.2
30-44	3,549	623	19	17.1-20.0	3,539	150	4	3.4-4.9	1,221	70	6	4.2-6.9
45-64	4,074	418	11	9.5-11.7	4,083	136	3	2.6-3.8	1,336	61	4	3.0-5.4
65 +	3,190	94	3	2.4-3.8	3,181	55	2	1.4-2.6	1,135	27	2	1.4-3.4
<b>Education:</b>												
<High School	1,108	95	13	10.4-16.0	1,096	33	5	2.9-6.3	336	4	1	0-1.7
High School	4,385	560	15	13.9-16.8	4,376	183	5	4.1-5.9	1,449	61	5	3.4-6.0
Some College	3,730	590	20	18.4-22.0	3,727	173	6	4.9-7.0	1,294	69	5	3.9-6.6
College Degree	3,604	499	16	14.5-17.5	3,605	125	4	2.9-4.5	1,251	79	7	4.9-8.1
<b>Income:</b>												
<\$15,000	1,047	119	18	13.5-21.6	1,045	33	5	2.7-7.2	351	13	4	1.5-7.0
\$15,000 - \$24,999	2,363	283	17	14.7-19.7	2,359	93	6	4.4-7.4	868	33	4	2.4-5.4
\$25,000 - \$49,999	4,103	633	18	16.8-19.8	4,100	201	6	4.6-6.4	1,323	71	6	4.1-7.0
\$50,000 - \$74,999	1,794	289	18	15.7-19.9	1,797	63	4	2.6-4.6	635	51	8	5.8-10.5
\$75,000 +	1,590	281	19	17.0-21.5	1,587	76	5	4.0-6.9	526	28	5	3.0-7.2
<b>Race:</b>												
White	11,863	1,621	17	15.9-17.7	11,845	479	5	4.4-5.4	3,997	202	5	4.5-6.1
African American	1,903	148	11	8.2-12.9	1,906	61	4	2.7-5.2	524	14	4	1.6-7.2
Asian American	278	16	7	3.0-11.0	279	3	1	0.0-2.7	81	1	2	0.0-6.8
Native American	228	33	20	12.6-26.6	226	6	3	0.2-6.6	64	3	4	0.0-8.4
Hispanic Origin	2,284	283	15	13.1-17.2	2,263	64	4	2.5-4.9	614	18	4	1.7-6.1
<b>Place of Residence:</b>												
Rural	7,145	918	16	14.4-16.6	7,124	245	4	3.5-4.6		114	5	4.2-6.2
Urban	5,716	827	18	16.8-19.6	5,714	270	6	5.0-6.7	1,912	99	5	3.8-6.0

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

**TABLE 26**  
**Average (Mean) Number of Alcoholic Drinks Consumed During Most Recent Binge-Drinking Occasion**  
**By Type of Drink and Respondent Characteristics**  
**Nebraska Adult Binge Drinkers (2003)**

	Beer or Malt Liquor			Wine/Wine Coolers/Etc.			Liquor or Cocktails		
	Total # of Respondents	Mean # Drinks	Confidence Interval	Total # of Respondents	Mean # Drinks	Confidence Interval	Total # of Respondents	Mean # Drinks	Confidence Interval
<b>All Adults</b>	659	6.0	5.49-6.47	665	0.4	0.27-0.46	659	1.4	1.14-1.58
<b>Gender:</b>									
Male	440	6.6	5.97-7.21	443	0.3	0.17-0.38	438	1.2	1.01-1.46
Female	219	4.2	3.74-4.70	222	0.6	0.44-0.84	221	1.7	1.19-2.27
<b>Age:</b>									
18-29	221	6.8	5.81-7.77	222	0.3	0.19-0.48	218	1.6	1.22-1.94
30-44	243	5.7	5.24-6.16	245	0.4	0.25-0.61	243	1.2	0.84-1.66
45-64	166	4.8	4.34-5.20	169	0.4	0.20-0.53	169	0.9	0.66-1.22
65 +	28	#	#	29	#	#	29	#	#
<b>Race:</b>									
White	627	5.9	5.42-6.45	632	0.4	0.28-0.48	627	1.4	1.15-1.60
African American	68	4.1	3.17-5.03	73	0.6	0.25-0.98	72	1.8	1.10-2.58
Asian American	8	#	#	8	#	#	8	#	#
Native American	19	#	#	19	#	#	19	#	#
Hispanic Origin	132	7.9	7.07-8.66	132	0.4	0.04-0.68	131	0.6	0.31-0.90
# - Number of respondents < 50.									

# TOBACCO USE

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Tobacco use remains the single most preventable cause of disease and death in the United States today. Cigarette smoking is responsible for approximately 440,000 deaths annually—about 20 percent of all deaths in this country. Deaths due to smoking account for more deaths each year than HIV, alcohol use, illegal drug use, homicide, suicide, and motor vehicle crashes combined. On average, adults who smoke cigarettes die 13 to 14 years earlier than non-smokers.

Cigarette smoking is a major risk factor for heart disease, stroke, lung cancer, and chronic lung disease. Smoking may also result in injuries and environmental damage due to fires. Smoking during pregnancy increases the risk of miscarriages, premature delivery, and sudden infant death syndrome (SIDS). In Nebraska, cigarette smoking cost approximately \$858 million for medical care of people with smoking-related illness and for lost wages and productivity in 2002.

Other forms of tobacco are not safe alternatives to smoking cigarettes, although the public may be less well-informed about the health risks associated with them. Cigar smoking and pipe smoking increase the risk of dying from cancers of the lung, esophagus, larynx, and oral cavity.

Bidis are small, thin cigarettes imported to the United States primarily from India and Southeast Asia. They have higher concentrations of nicotine, tar, and carbon monoxide than conventional cigarettes sold in the United States. Although research studies on the health effects of bidis have not yet been conducted in this country, studies from India show that bidi smoking is associated with an increased risk for cancer of the oral cavity, lung, stomach, and esophagus. Bidi smoking is also associated with an increased risk of heart disease and chronic bronchitis.

Smokeless tobacco (“spit” tobacco) includes oral forms of tobacco, primarily snuff and chewing tobacco products. Like cigarettes, smokeless tobacco is highly addictive and can, in fact, provide users with more nicotine per equivalent dose than cigarettes do. Smokeless tobacco use is the single most important risk factor for oral cancers (cancers of the lip, mouth, tongue, and throat), accounting for an estimated 75 percent of these cancers. Long-term smokeless tobacco users develop oral cancers at a rate nearly 50 times greater than that of non-users.

## **CIGARETTE SMOKING**

### **Definitions**

**Current Daily Smokers:** Persons who reported smoking at least 100 cigarettes in their lifetime, currently smoke, and smoked all of the past 30 days.

**Current “Some Days” Smokers:** Persons who reported smoking at least 100 cigarettes in their lifetime, currently smoke, and smoked some (one to 29) of the past 30 days.

**Former Smokers:** Persons who reported smoking at least 100 cigarettes in their lifetime, but do not currently smoke.

### **Current Prevalence**

In 2001-2003, more than one-fifth (21 percent) of Nebraskans aged 18 and older stated that they are current smokers (Figure 69). Sixteen percent of the total said they smoke cigarettes on a daily basis, while five percent indicated they are current smokers but smoke less frequently than every day. Nearly one-fourth of respondents (23 percent) are former smokers and 56 percent had never smoked.

### **Trend over Time**

Smoking prevalence has remained fairly steady at about 22 percent since 1993 (Figure 70). These



prevalence estimates include both daily and “some days” smokers.

### Who’s at Risk in Nebraska?

Men (24 percent) were significantly more likely than women (19 percent) to be current smokers (Table 27).

Prevalence of cigarette smoking decreased with increasing age of respondent. Young adults aged 18 to 29 (27 percent) and adults aged 30 to 44 (25 percent) were significantly more likely than older adults to report they were current smokers. Adults in the 45-to-64 age group (21 percent) were significantly more likely than persons aged 65 and older (10 percent) to say they currently smoke cigarettes.

Smoking prevalence was significantly lower among college graduates (12 percent) than among respondents with less education. In fact, prevalence was at least twice as high among respondents with less than a high school education (30 percent), high school graduates (25 percent), and those with technical training or some college (24 percent).

Results were similar when smoking prevalence was tabulated by income bracket. Respondents with annual incomes under \$50,000 (22 percent to 29 percent smokers) were more likely than those with household incomes of \$50,000 or higher (16 to 18 percent) to say they were current smokers.

Native American adults reported a significantly higher proportion of current smokers than adults from other racial/ethnic groups in Nebraska in 2001-2003 (Figure 71). Nearly one-half of these respondents (47 percent) indicated they currently smoke cigarettes. The proportion of African Americans who smoke (27 percent) was significantly higher than the rates among Hispanic (18 percent) and white (21 percent) Nebraskans.

Residents of urban counties (23 percent) were somewhat more likely than rural residents (20 percent) to state that they are current smokers, but differences were not significant.

### Nebraska and the Nation

Nebraska’s smoking prevalence rate (21 percent for 2001-2003) was lower than the national median for the same period (23 percent) (Figure 72). Each of the six surrounding states except Colorado (20 percent) reported higher smoking rates than Nebraska. However, differences were generally small. As in previous studies, smoking prevalence was by far the highest in Missouri (26 percent).

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2003	US BRFSS 2001-2003	US 2010 Target
Prevalence of cigarette smoking among adults aged 18 and older	12%	21%	23%	12%

## Behavioral Characteristics

### Age When Respondents First Smoked a Cigarette

Among respondents who ever smoked at least 100 cigarettes in their lifetime, the average age when they first smoked a cigarette (even one or two puffs) was 15.4 years.

Males were significantly younger (14.8 years) than females (16.1 years) when they first smoked a cigarette. Persons who did not receive further education after they graduated from high school were significantly younger (15.2 years) when they first tried cigarettes than were those who went on to become college graduates (16.0 years).

## **Age When Respondents Started Smoking Regularly**

Respondents who had ever smoked were also asked how old they were when they “first started smoking cigarettes regularly”. The mean (average) age was 18.2 years. Males were once again significantly younger (17.8 years) than females (18.7 years) when they began smoking cigarettes regularly.

College graduates (19.1 years) were significantly older when they began smoking cigarettes regularly than high school graduates (17.9 years) or persons with less than a high school education (17.1 years). Respondents with some college or technical training were also significantly older (18.3 years) when they began regular smoking than those who did not complete high school.

Differences by income and rural vs. urban residence were not significant. The numbers of current and former smokers in racial/ethnic minority groups were generally too small to permit comparison.

## **Former Smokers**

Former smokers were asked how long it had been since they last smoked cigarettes regularly. More than six of every ten former smokers (61 percent) stated that they had quit smoking ten or more years ago (Figure 73). Thirteen percent reported that they had not smoked for five to ten years, while 18 percent had stopped one to five years ago. For eight percent, it had been less than a year since they quit smoking.

As might be expected, significant differences in length of time since former smokers had stopped smoking were found by age group. Eighty-five percent of respondents aged 65 and older reported quitting 10 or more years ago, compared to 72 percent of those aged 45 to 64 and only 38 percent of those aged 30 to 44.

Differences by gender, education, income, race/ethnicity, and place of residence were not significant.

## **Health Professional Advice about Smoking**

Current smokers or former smokers who were still smoking in the past year were asked if they had seen a doctor, nurse, or other health professional in the past 12 months to get any kind of care for themselves. Sixty-two percent said they had.

Of these respondents who had gotten care for themselves, 71 percent reported that this health professional had recommended they quit smoking. Overall, 44 percent of current smokers or former smokers who had quit in the last 12 months had been advised, in the last year, to stop smoking.

## **Current Smokers Who Quit Smoking for One Day or More**

### **Definition**

Current smokers (defined above) who said “Yes” to the question, “During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?”

When asked if they had quit smoking for one day or more in the past year, 54 percent of current smokers said they had (Table 28).

In each of the past three years (2001 through 2003), more than one-half of current smokers in Nebraska reported quitting smoking for at least one day in the past 12 months, indicating that many probably would like to quit.

Younger smokers (aged 18 to 29) were significantly more likely than each of the older age groups to have stopped smoking for at least one day in the past year. Nearly two-thirds (65 percent) of these younger respondents reported this behavior, compared to 54 percent of 30- to 44-year-olds, 45 percent of persons aged 45-to-64, and 46 percent of persons aged 65 and older.

No significant differences were found in proportion of current smokers quitting for at least one day by gender, education, income, race/ethnicity, or rural/urban residence.

## **Nebraska and the Nation**

For comparison to other states and the nation, current daily smokers were used. In 2002, Nebraska's rate of daily smokers quitting for one day or more in the past 12 months matched the national median of 52 percent (Figure 74). Of surrounding states, only Wyoming reported a higher rate (54 percent), while South Dakota also matched the national median with 52 percent. Rates were much lower in Kansas (44 percent), Missouri (44 percent), and Iowa (46 percent).

## **Exposure to Environmental Tobacco Smoke at Home and in the Workplace**

Exposure to environmental tobacco smoke (ETS), also known as second-hand smoke, has serious health effects. It is estimated that about 35,000 deaths occur in the United States each year as a result of ETS. It has been found to increase the risk of heart disease and lung cancer in adults and can worsen pulmonary symptoms for persons with asthma, chronic bronchitis, and allergic conditions. Children exposed to ETS have an increased risk of ear infections, pneumonia, bronchitis, and tonsillitis. It is also a risk factor for childhood asthma and can increase the frequency and severity of asthma attacks in children.

Since 1998, the Nebraska BRFSS has asked questions relating to exposure to secondhand smoke, such as smoking in the home and workplace.

### **Smoking in the Home**

Participants in the 2001-2003 BRFSS were asked which statement best describes the rules about smoking inside their home. The majority (75 percent) said that smoking is not allowed anywhere inside their home (Figure 75). A much smaller proportion (eight percent) indicated that "smoking is allowed in some places or at some times", while five percent stated that "smoking is allowed anywhere inside the home." Twelve percent reported that "there are no rules about smoking inside the home."

Young adults aged 18 to 29 were significantly more likely (78 percent) than adults aged 45 and older (72 percent) to indicate that smoking is not allowed anywhere in their homes (Table 28).

The proportion of college graduates who do not allow smoking in their homes (86 percent) was significantly greater than the proportions reported by respondents with less education. Persons with technical training or some college (74 percent) also were significantly more likely to have a "no smoking" rule than high school graduates (69 percent) or persons who had not finished high school (66 percent).

A similar pattern was evident by household income. Persons earning \$50,000 per year or more (81 to 84 percent) were significantly more likely to not allow smoking in their homes than those with annual incomes of \$25,000 to \$49,999 (73 percent) or less than \$25,000 (66 to 69 percent).

Hispanic Americans (86 percent) were significantly more likely to say they do not permit smoking in their homes than all other racial/ethnic groups surveyed, except Asian Americans (82 percent) (Figure 76). The proportions of Asian Americans and whites (75 percent) with a "no smoking" rule were significantly greater than the proportions of African Americans (61 percent) and Native Americans (56 percent).

### **Smoking in the Workplace**

Respondents who were employed or self-employed at the time of the survey were asked if they are indoors most of the time at their job. Overall, 79 percent reported that they are.

These respondents were then asked, "What is your place of work's smoking policy for indoor public or common areas?" Eight of every ten respondents (83 percent) said that smoking is not allowed in any public areas at their workplace. Only 11 percent indicated that smoking is permitted in some public areas, while 3 percent said their workplace smoking policy allows it in all public areas. Very few workplaces (two percent) did not have a smoking policy for public areas.

Respondents working in jobs where they are indoors most of the time were also asked what the smoking policy is for work areas. Again, the great majority of workplaces (90 percent) have a policy that does not permit smoking in any work areas. Few respondents stated that smoking was allowed in some

(five percent) or all (three percent) work areas at their job. Only two percent of respondents said their workplace had no smoking policy for work areas.

## **CIGAR SMOKING**

### **Definition**

Ever Smoked a Cigar: Respondents who “ever smoked a cigar, even one or two puffs.”

Currently Smoke Cigars: Respondents who currently smoke cigars “every day” or “some days”.

### **Ever Smoked a Cigar**

Overall, 44 percent of Nebraska adults said they had ever smoked a cigar, even one or two puffs.

Males (69 percent) were significantly more likely than females (20 percent) to have tried smoking cigars.

### **Current Prevalence**

The majority (86 percent) of respondents who ever tried smoking a cigar do not currently smoke them. Thirteen percent said they smoke cigars “some days” of the week, while less than one percent reported smoking cigars every day.

Six percent of all respondents smoke cigars some days or every day, while 38 percent had tried cigars but do not currently smoke them (Figure 77). The remaining 56 percent of the total had never tried smoking a cigar.

### **Who’s at Risk in Nebraska?**

Men (12 percent) were significantly more likely than women (less than one percent) to currently smoke cigars.

Young adults aged 18 to 29 and adults aged 30 to 44 were much more likely (nine percent each) than older respondents to smoke cigars. Only four percent of 45- to 64-year-olds and two percent of persons aged 65 or older reported currently smoking cigars.

College graduates (eight percent) and respondents who had technical training or some college (seven percent) were more likely to currently smoke cigars than respondents with less than a high school education (five percent) or high school graduates (four percent).

Prevalence of cigar smoking increased slightly with increasing household income, ranging from five percent for respondents with incomes below \$15,000 per year to nine percent for those earning \$75,000 or more annually. However, differences were not significant.

Urban residents (eight percent) were more likely than rural residents (five percent) of Nebraska to say they now smoke cigars.

## **PIPE SMOKING**

### **Definition**

Ever Smoked Tobacco in a Pipe: Respondents who “ever smoked tobacco in a pipe, even one or two puffs”.

Currently Smoke a Pipe: Respondents who now smoke a pipe “every day” or “some days.”

### **Ever Smoked Tobacco in a Pipe**

Nearly one-fifth (19 percent) of adults in Nebraska stated that they ever smoked tobacco in a pipe.

Males (36 percent) were significantly more likely than females (3 percent) to report ever smoking a pipe.

Nebraskans aged 45 and older (27 percent) were significantly more likely to have tried pipe smoking than those aged 30 to 44 (13 percent) or those aged 18 to 29 (11 percent).

### **Current Prevalence**

Only four percent of respondents who ever tried smoking tobacco in a pipe reported that they currently smoke a pipe. This translates into less than one percent of all respondents to the 2001-2003 Nebraska BRFSS. Among all male respondents, less than two percent currently smoke a pipe.

## **BIDI SMOKING**

### **Definition**

Ever Smoked a Bidi: Respondents were told, “A bidi is a flavored cigarette from India.” Respondents who “ever smoked a bidi, even one or two puffs.”

Currently Smoke Bidis: Respondents who now smoke bidis “every day” or “some days”.

### **Ever Smoked a Bidi**

Only about three percent of adults participating in the 2001-2003 BRFSS said they had ever smoked a bidi.

Males (five percent) were significantly more likely than females (two percent) to indicate they ever smoked a bidi.

Young adults (aged 18 to 29) were significantly more likely (nine percent) than older respondents to report ever trying a bidi. Only two percent of 30- to 44-year-olds and one percent of 45- to 64-year-olds had ever smoked this type of cigarette.

The proportion of urban residents who ever tried a bidi (five percent) was significantly higher than the proportion of rural residents who had (two percent).

### **Current Prevalence**

Only five percent of the respondents who ever tried a bidi indicated that they currently smoke them. This translates into less than one percent of all respondents.

## **SMOKELESS TOBACCO**

### **Definition**

Ever Used Smokeless Tobacco: Respondents who “ever used or tried any smokeless tobacco products such as chewing tobacco or snuff.”

Current Smokeless Tobacco Users: Respondents who currently use chewing tobacco or snuff “every day” or “some days.”

### **Ever Used**

More than one-fifth (21 percent) of Nebraska adults reported that they ever used any smokeless tobacco products such as chewing tobacco or snuff.

Males aged 18 and older (40 percent) were much more likely than females in this age group (4 percent) to say they ever used smokeless tobacco.

## Current Prevalence

In 2001-2003, 20 percent of Nebraska men who ever tried smokeless tobacco stated that they currently use it. This translates into eight percent of all Nebraska men aged 18 and older (Figure 78). Five percent of all Nebraska men use chewing tobacco and/or snuff every day and three percent use it some days of the week.

Sixty percent of all male respondents reported that they had never tried these products, while 32 percent of the total had tried them but do not currently use them.

## Trend over Time

The prevalence of smokeless tobacco use among adult men has held fairly steady at seven to nine percent since 1987-1988 (Figure 79).

## Who's at Risk in Nebraska?

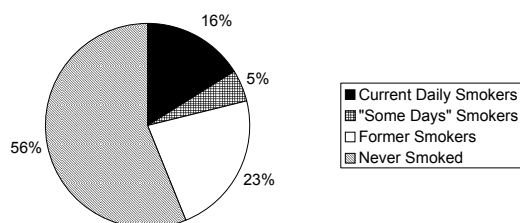
Young men aged 18 to 29 (12 percent) and men aged 30 to 44 (11 percent) were much more likely to be current users of smokeless tobacco products than men aged 45 to 64 (5 percent) and those aged 65 and older (2 percent).

Compared to men in urban counties (4 percent), a much greater proportion of rural men (11 percent) said they currently use snuff or chewing tobacco.

No trends in smokeless tobacco use were noted by education, household income, or race/ethnicity of respondents.

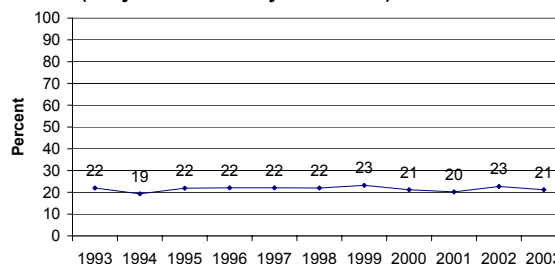
NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2003	US BRFSS 2001-2003	US 2010 Target
Prevalence of males aged 18 and older who currently use smokeless tobacco	4%	8%	NA	0.4%

**Figure 69**  
**Cigarette Smoking Status (2001-2003)**



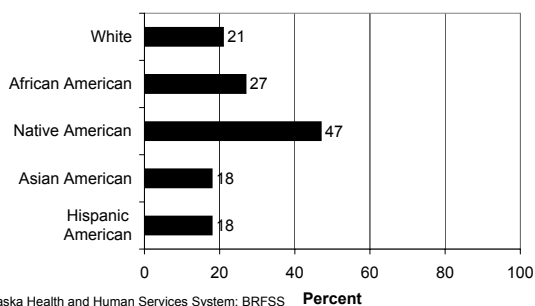
Nebraska Health and Human Services System: BRFSS

**Figure 70**  
**Trend in Cigarette Smoking Prevalence**  
**(Daily and "Some Days" Smokers) 1993-2003**



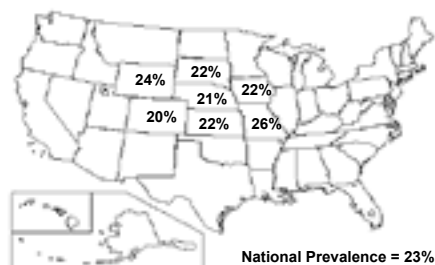
Nebraska Health and Human Services System: BRFSS

**Figure 71**  
**Cigarette Smoking Prevalence (Daily and "Some Days" Smokers) by Race/Ethnicity (2001-2003)**



Nebraska Health and Human Services System: BRFSS

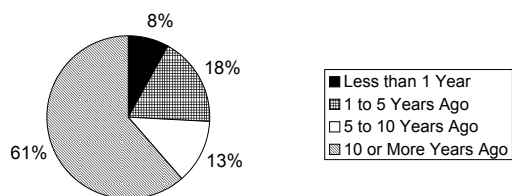
**Figure 72**  
**Current Smoking Prevalence**  
**Nebraska Adults Aged 18 and Older (2001-2003)**



National Prevalence = 23%

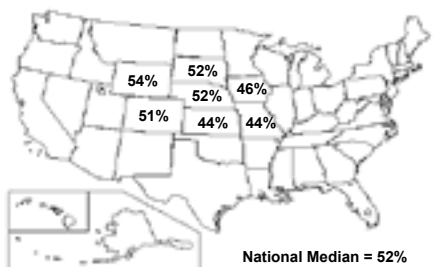
Nebraska Health and Human Services System: BRFSS

**Figure 73**  
**Length of Time Since Former Smokers Last**  
**Smoked Cigarettes Regularly (2001-2003)**



Nebraska Health and Human Services System: BRFSS

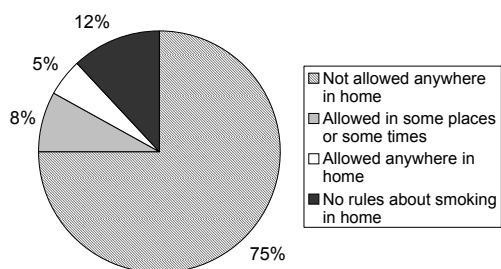
**Figure 74**  
**Current Daily Smokers Who Quit Smoking**  
**For 1 or More Days in Past 12 Months (2002)**



National Median = 52%

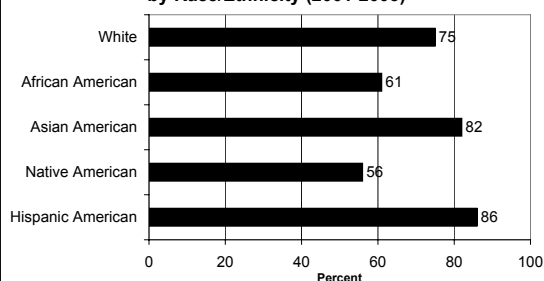
Nebraska Health and Human Services System: BRFSS

**Figure 75**  
**Smoking Rules Inside Respondents' Homes**  
**(2001-2003)**



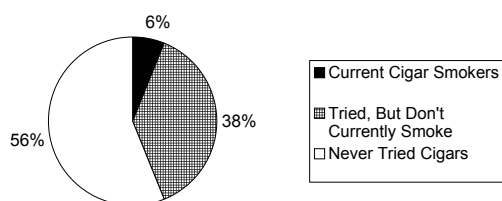
Nebraska Health and Human Services System: BRFSS

**Figure 76**  
**No Smoking Allowed in the Home**  
**by Race/Ethnicity (2001-2003)**



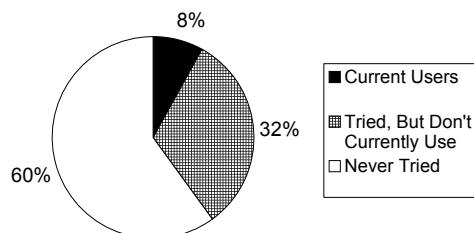
Nebraska Health and Human Services System: BRFSS

**Figure 77**  
**Cigar Smoking Status**  
**(2001-2003)**



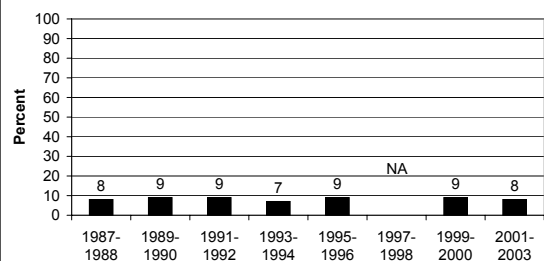
Nebraska Health and Human Services System: BRFSS

**Figure 78**  
**Smokeless Tobacco Use--Males**  
**(2001-2003)**



Nebraska Health and Human Services System: BRFSS

**Figure 79**  
**Trend in Smokeless Tobacco Use--Males**  
**(1987-2003)**



Nebraska Health and Human Services System: BRFSS



<b>TABLE 27</b> <b>Cigarette Smoking Status</b> <b>Nebraska Adults, 2001 -2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>												
	Currently Smoke Cigarettes				Former Smokers				Never Smoked			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	13,030	2,644	21	20.5-22.3	13,030	3,194	23	22.3-23.9	13,030	7,192	56	54.5-56.5
<b>Gender:</b>												
Male	5,011	1,124	24	22.1-24.9	5,011	1,545	27	25.7-28.4	5,011	2,342	49	47.8-54.0
Female	8,019	1,520	19	18.4-20.4	8,019	1,649	19	18.4-20.3	8,019	4,850	61	60.0-62.5
<b>Age:</b>												
18-29	1,998	538	27	24.8-29.8	1,998	231	10	8.6-11.4	1,998	1,229	63	60.1-65.3
30-44	3,588	914	25	23.3-26.5	3,588	660	18	16.9-19.7	3,588	2,014	57	55.0-58.7
45-64	4,131	878	21	19.8-22.6	4,131	1,173	29	27.8-31.0	4,131	2,080	49	47.6-51.1
65 +	3,231	305	10	8.4-10.7	3,231	1,110	36	34.3-38.0	3,231	1,816	54	52.3-56.2
<b>Education:</b>												
<High School	1,122	278	30	26.30-33.2	1,122	279	22	19.4-24.7	1,122	565	48	44.7-51.8
High School	4,458	1,059	25	23.2-26.26	4,458	1,167	25	23.3-26.1	4,458	2,232	51	48.8-52.4
Some College	3,773	858	24	22.0-25.5	3,773	900	22	20.9-24.0	3,773	2,015	54	51.8-55.7
College Degree	3,639	445	12	10.8-13.3	3,639	838	22	20.5-23.6	3,639	2,356	66	64.2-67.6
<b>Income:</b>												
<\$15,000	1,075	290	26	23.0-29.9	1,075	258	21	17.9-23.5	1,075	527	53	48.8-56.9
\$15,000 - \$24,999	2,388	612	29	26.4-31.6	2,388	581	22	20.0-23.8	2,388	1,195	49	46.6-51.7
\$25,000 - \$49,999	4,137	889	22	20.8-23.7	4,137	1,038	25	23.0-26.0	4,137	2,210	53	51.5-55.0
\$50,000 - \$74,999	1,806	301	18	15.6-19.8	1,806	422	23	20.6-24.8	1,806	1,083	60	57.1-62.2
\$75,000 +	1,600	240	16	14.0-18.2	1,600	425	26	23.3-28.0	1,600	935	58	55.6-61.0
<b>Race:</b>												
White	12,020	2,408	21	20.3-22.1	12,020	3,031	24	23.2-25.0	12,020	6,581	55	53.7-55.8
African American	1,616	428	27	24.0-30.0	1,616	303	16	13.6-18.2	1,616	885	57	53.8-60.5
Asian American	242	46	18	12.1-24.2	242	21	8	4.0-11.5	242	175	74	67.3-80.9
Native American	203	88	47	37.8-56.4	203	50	23	15.3-31.3	203	65	30	21.6-37.7
Hispanic Origin	2,027	338	18	15.9-20.7	2,027	286	13	11.1-14.9	2,027	1,403	69	66.0-71.5
<b>Place of Residence:</b>												
Rural	7,250	1,418	20	19.3-21.5	7,250	1,727	23	21.7-23.9	7,250	4,105	57	55.5-58.1
Urban	5,780	1,226	23	21.2-24.0	5,780	1,467	23	22.2-24.6	5,780	3,087	54	52.4-55.6

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

<b>TABLE 28</b> <b>Smoking Behavior</b> <b>Nebraska Adults, 2001-2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Current Smokers--Quit 1+ Days in Past Yr.				Smoking Not Allowed in Their Home			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	2,639	1,381	54	51.7-56.3	4,818	3,546	75	73.7-76.4
<b>Gender:</b>								
Male	1,121	560	52	48.8-55.7	1,886	1,378	75	72.9-77.2
Female	1,518	821	56	53.0-58.9	2,932	2,168	75	73.3-76.8
<b>Age:</b>								
18-29	537	354	65	60.3-70.3	675	540	78	74.9-82.0
30-44	912	493	54	50.1-57.5	1,321	1,004	77	74.6-79.5
45-64	877	396	45	41.4-49.0	1,611	1,148	72	70.0-74.8
65 +	305	133	46	40.0-52.8	1,191	837	72	69.3-74.8
<b>Education:</b>								
<High School	277	139	55	47.7-61.9	400	258	66	60.6-71.5
High School	1,057	538	52	48.8-56.0	1,611	1,082	69	66.0-71.1
Some College	857	471	56	52.2-60.6	1,369	1,003	74	71.6-76.9
College Degree	444	230	52	46.8-57.6	1,431	1,199	86	83.6-87.5
<b>Income:</b>								
<\$15,000	290	163	61	53.6-67.6	393	259	69	63.0-74.1
\$15,000 - \$24,999	611	344	60	54.7-65.2	851	548	66	62.2-69.6
\$25,000 - \$49,999	888	477	54	50.3-57.9	1,562	1,138	73	71.0-75.9
\$50,000 - \$74,999	300	138	46	39.6-52.5	723	586	81	78.3-84.6
\$75,000 +	240	120	51	43.8-57.9	672	563	84	81.5-87.4
<b>Race:</b>								
White	2,405	1,237	53	50.8-55.6	4,468	3,281	75	73.4-76.2
African American	428	261	62	55.6-68.1	967	589	61	56.6-65.0
Asian American	46	#	#	#	123	96	82	74.9-89.4
Native American	88	55	52	37.5-65.8	121	68	56	43.4-68.4
Hispanic Origin	335	198	62	55.3-69.3	1,171	1,014	86	83.2-89.4
<b>Place of Residence:</b>								
Rural	1,415	734	54	51.1-57.2	2,672	1,913	73	71.5-75.2
Urban	1,224	647	54	50.3-57.3	2,146	1,633	77	75.0-79.0
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses. # - Data not reported due to N < 50.								

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# OVERWEIGHT AND OBESITY

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The prevalence of overweight and obesity among adults, adolescents, and children has risen considerably over the past two decades in the United States and in Nebraska. Being overweight or obese often results in a variety of health problems and has been related to increased risk of death. Estimates of the number of obesity-related deaths in the United States each year have varied, ranging from 112,000 to about 300,000.

Being overweight or obese substantially raises the risk of illness from: heart disease and stroke; high blood pressure; elevated blood cholesterol levels; type 2 diabetes, endometrial, breast, prostate, and colon cancers; gallbladder disease; arthritis; sleep disturbances; and breathing problems. Obese persons (both children and adults) may also suffer from social stigmatization, discrimination, and lowered self-esteem.

## **PREVALENCE OF OVERWEIGHT AND OBESITY**

### **Definitions**

The Body Mass Index (BMI) is used as a proxy measure for overweight and obesity in adults until a better method of determining actual body fat is developed. It is calculated by dividing weight in kilograms by the square of height in meters.

Overweight or obese: A BMI reading of 25.0 or greater.

Obese: A BMI reading of 30.0 or greater.

Overweight but not obese: A BMI reading of 25.0 to 29.9.

The definition of overweight has changed from that used in the BRFSS prior to 1999. Prevalence data for past years have been recalculated in the 1999-2000 and the current report to assure that trends are accurate. However, prevalence estimates in the 1999-2000 and 2001-2003 reports will not match those found in earlier BRFSS reports.

Height and weight figures used to determine overweight and obesity in this study were those reported by respondents. These questions were asked in 2001, 2002, and 2003.

### **Current Prevalence**

In Nebraska, 23 percent of BRFSS respondents reported heights and weights that placed them in the “obese” category in 2001-2003 (Table 29). More than one-third of adults (37 percent) were classified as “overweight but not obese”. Thus, a total of 60 percent of Nebraska adults were categorized as “overweight or obese” with a BMI reading of 25.0 or greater.

### **Trend over Time**

The proportion of adults who are at risk due to overweight or obesity (BMI = 25+) has increased considerably over the years. Prevalence has increased by 15 percentage points—from 46 percent in 1989 to 61 percent in 2003 (Figure 80).

Overall, 37 percent of adults were classified as overweight but not obese (BMI = 25.0 – 29.9) in 2003. This proportion is higher than that reported in 1989 (33 percent), but the greatest share of the increase in overweight and obesity has occurred in the obese category (Figures 81 and 82). From 1989 through 1992, the proportion of adults who were obese was stable at 12 or 13 percent. Since then, prevalence of obesity has nearly doubled, so that 24 percent were categorized as obese in 2003.

### **Who’s at Risk in Nebraska?**

Men (24 percent) were significantly more likely than women (21 percent) in this study to report weights and heights that placed them in the obese category in 2001-2003 (Table 29). The proportion of

respondents who were overweight but not obese was also significantly higher among men (45 percent) than among women (30 percent), based on self-reported heights and weights.

Prevalence of obesity increased significantly with advancing age of respondent through age 64 (Figure 83). The proportion of respondents who were obese was lowest among young adults aged 18 to 29 (16 percent). Prevalence increased significantly in the 30-to-44 (23 percent) and 45-to-64 (28 percent) age groups. Prevalence of obesity dropped back to 20 percent among respondents aged 65 and older.

Looking at proportion of respondents who are overweight but not obese, a slightly different pattern emerges. Prevalence of overweight is again significantly lower among young adults aged 18 to 29 (29 percent) than among older adults. However, for adults aged 30 and older, there is very little difference in prevalence of overweight among the three age groups (ranging from 39 to 41 percent).

Respondents with a high school diploma (24 percent) or less education (25 percent) were significantly more likely than college graduates (20 percent) to be categorized as obese. No significant differences were found in prevalence of overweight by educational level of respondents.

Persons with annual household incomes below \$50,000 reported a greater prevalence of obesity (23 to 27 percent) than did those earning \$75,000 or more per year (19 percent).

Looking at proportion of respondents who were overweight but not obese, the proportion was significantly smaller (30 percent) among those in the lowest income bracket (below \$15,000), compared to 36 to 40 percent among respondents with incomes of \$15,000 or more.

Native American (36 percent) and African American (34 percent) adults were significantly more likely than Hispanic Americans (24 percent), whites (22 percent), or Asian Americans (9 percent) to report weights and heights that categorize them as obese (Figure 84). White and Hispanic respondents were also significantly more likely than Asian American respondents to be classified as obese.

Hispanic American adults (41 percent) were significantly more likely than African American (35 percent) or Asian American (30 percent) adults to be overweight but not obese.

No significant differences were found in prevalence of obesity or overweight among rural versus urban Nebraskans.

## Nebraska and the Nation

Obesity was slightly more prevalent in Nebraska (23 percent) than nationwide (22 percent), based on the 2001-2003 BRFSS (Figure 85). Of the surrounding states, Iowa (23 percent), Missouri (23 percent), Kansas (22 percent) and South Dakota (22 percent) all reported prevalence estimates near Nebraska's. Only in Colorado (16 percent) and Wyoming (20 percent) was prevalence of obesity lower.

Proportion of BRFSS respondents who were overweight but not obese varied little among Nebraska (37 percent), the nation (37 percent) and the surrounding states in 2001-2003 (Figure 86). Three of the states (Missouri, Colorado, and Wyoming) reported 36 percent of adults as overweight (BMI = 25.0 – 29.9). In Kansas, 37 percent were overweight, while 38 percent fell into this category in Iowa and South Dakota.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2003	US BRFSS 2001-2003	US 2010 Target
Prevalence of obesity (BMI=30.0 or greater) among adults 18 and older	15%	23%	22%	15%

## **WEIGHT CONTROL**

Overweight and obesity occur when a person eats more calories from food (energy) than he or she expends, for example, through physical activity. This balance between energy intake and output is influenced by metabolic and genetic factors, as well as by diet and physical activity. Environmental, cultural, and socioeconomic components also play a role.

The potential health benefits of weight reduction for overweight and obese persons are important. However, losing weight is a difficult process for most people. Still, it is possible to achieve a healthy body weight, using the recommended combination of reduced calorie intake and increased physical activity.

### **Current Weight Loss Attempts**

All respondents to the 2001-2003 BRFSS were asked, “Are you now trying to lose weight?” About four of every ten adult Nebraskans (41 percent) stated they were currently trying to lose weight (Table 29).

### **Who’s Attempting Weight Loss?**

Nearly one-half of females respondents (48 percent) said they were attempting to lose weight, compared to one-third of males (33 percent). This difference is statistically significant.

By age group, young adults aged 18 to 29 (34 percent) were significantly less likely than 30- to 44-year-olds (42 percent) to say they were trying to lose (Figure 87). Respondents aged 45 to 64 were significantly more likely than all other age groups to report weight loss efforts (51 percent). Thirty percent of respondents aged 65 and older were attempting to lose weight.

Respondents who had not completed high school (31 percent) were significantly less likely than respondents with more education to indicate they were currently trying to lose weight (40 to 43 percent).

A significantly greater proportion of white Nebraskans (41 percent) reported attempting weight loss, compared to Hispanic Americans (34 percent) and Asian Americans (23 percent). The proportion of Asian Americans trying to lose was also significantly smaller than the proportions of Native Americans (44 percent) and African Americans (40 percent).

Two-thirds of obese respondents (67 percent) reported that they were currently trying to lose weight, compared to 42 percent of respondents who were overweight but not obese. Among persons with normal or low body weight (BMI < 25), 21 percent said they were now attempting weight loss.

### **Weight Loss Methods**

Respondents who stated they were currently trying to lose weight were asked about their use of diet and exercise to accomplish this goal. Altogether, 63 percent reported that they were using a combination of increased physical activity and reduced calorie or fat intake to reach their objective (Figure 88). An additional 17 percent said they were just eating fewer calories and/or less fat, while 14 percent stated they were using increased physical activity alone to accomplish weight loss. Six percent indicated they were using other methods.

### **Weight Maintenance Efforts**

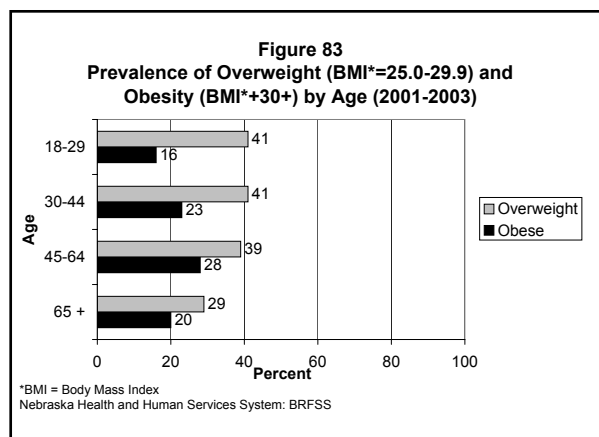
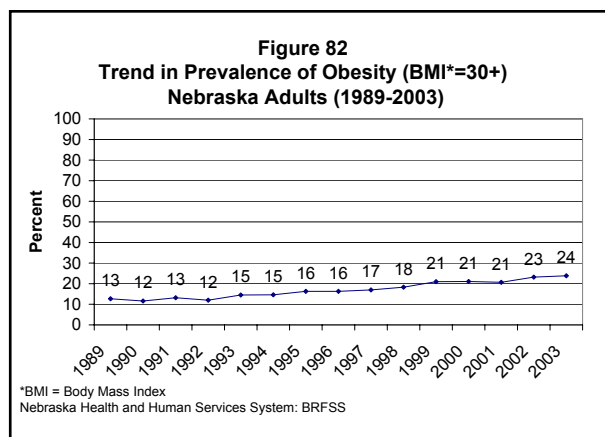
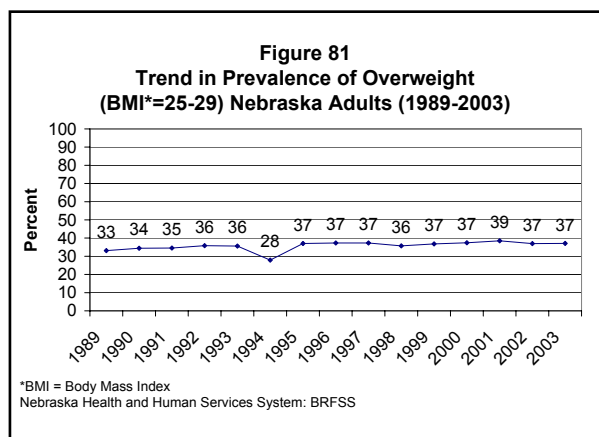
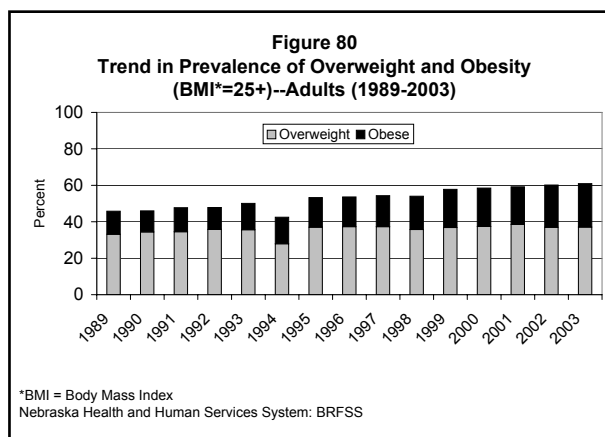
Respondents who did not report that they were “now trying to lose weight” were asked, “Are you now trying to maintain your current weight, that is, to keep from gaining weight?” Among these respondents, 58 percent said they were trying to maintain their weight. This translates into 35 percent of total respondents. Thus, 41 percent of all 2001-2003 BRFSS respondents said they were trying to lose weight, 35 percent were attempting to maintain their current weight, and 24 percent were doing neither.

### **Medical Advice About Weight**

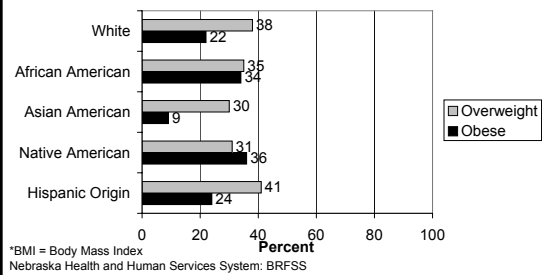
All respondents to the 2001-2003 BRFSS were asked if, in the past 12 months, a doctor, nurse, or other health professional given them advice about their weight. Although 60 percent of BRFSS respondents

were categorized as overweight or obese, only about one in eight (12 percent) said they had been given medical advice about their weight. Most were encouraged to lose weight (nine percent of all respondents), rather than gain or maintain their current weight.

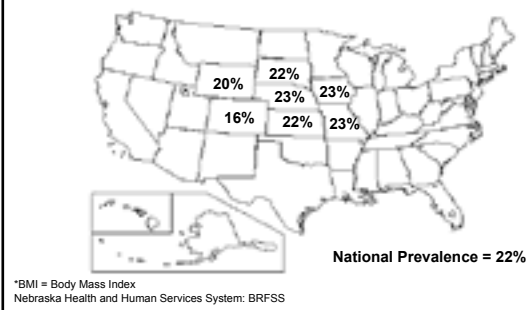
For obese respondents, however, the proportion who were encouraged by their physician or other health professional to lose weight was much higher (25 percent). Among overweight (but not obese) individuals, only six percent had been advised to attempt weight loss.



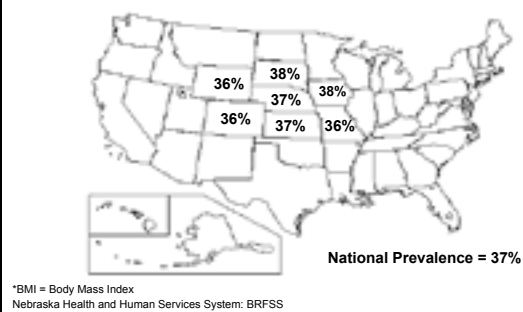
**Figure 84**  
Prevalence of Overweight (BMI\*=25.0-29.9) and  
Obesity (BMI\*=30+) by Race/Ethnic Origin  
(2001-2003)



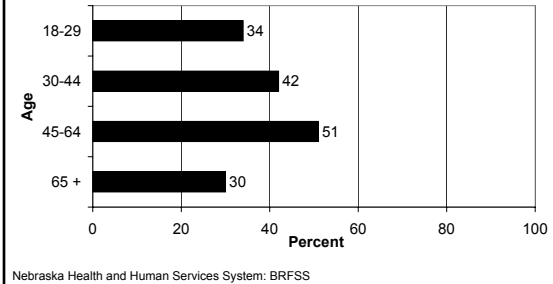
**Figure 85**  
Prevalence of Obesity (BMI\*=30+)  
Adults Aged 18 and Older (2001-2003)



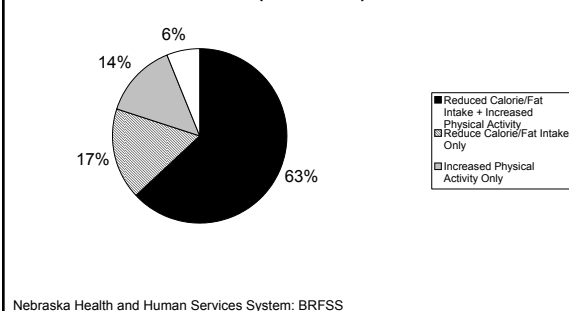
**Figure 86**  
Prevalence of Overweight (BMI\*=25.0-29.9)  
Adults Aged 18 and Older (2001-2003)



**Figure 87**  
Nebraska Adults Currently Trying to Lose Weight  
by Age (2001-2003)



**Figure 88**  
Weight Loss Methods Used by Nebraska Adults  
(2001-2003)



**TABLE 29**  
**Prevalence of Overweight and Obesity**  
**Nebraska Adults, 2001 -2003**  
**(with 95% Confidence Intervals--SUDAN)**

	Overweight But Not Obese (BMI = 25 - 29)				Obese (BMI = 30 +)				Adults Attempting Weight Loss			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	12,330	4,549	37	36.5-38.5	12,330	2,817	23	21.7-23.5	4,969	2,100	41	39.1-42.2
<b>Gender:</b>												
Male	4,924	2,288	45	43.4-46.7	4,924	1,190	24	22.9-25.7	1,954	663	33	30.5-35.1
Female	7,406	2,261	30	28.8-31.2	7,406	1,627	21	19.8-22.0	3,015	1,437	48	46.0-50.1
<b>Age:</b>												
18-29	1,898	553	29	26.4-31.3	1,898	312	16	14.4-18.5	694	252	34	30.2-38.1
30-44	3,396	1,208	39	36.8-40.6	3,396	790	23	21.7-25.0	1,363	594	42	38.9-44.7
45-64	3,913	1,509	41	39.0-42.5	3,913	1,094	28	26.4-29.6	1,661	854	51	48.1-53.4
65 +	3,079	1,267	41	39.4-43.3	3,079	615	20	18.6-21.9	1,226	391	30	27.3-32.8
<b>Education:</b>												
<High School	1,023	366	35	31.7-38.6	1,023	263	25	21.8-28.0	422	139	31	26.0-36.4
High School	4,208	1,591	38	35.8-39.3	4,208	1,040	24	22.8-25.9	1,674	691	40	36.9-42.2
Some College	3,583	1,305	37	34.9-38.7	3,583	835	23	21.0-24.2	1,399	613	43	39.6-45.6
College Degree	3,497	1,278	39	37.0-40.8	3,497	675	20	18.2-21.4	1,464	654	43	40.0-45.7
<b>Income:</b>												
<\$15,000	1,029	336	30	26.0-33.0	1,029	298	27	23.2-30.2	408	184	43	36.5-48.5
\$15,000 - \$24,999	2,275	820	36	33.9-38.8	2,275	573	25	22.3-26.6	874	306	35	31.0-38.7
\$25,000 - \$49,999	3,985	1,530	40	38.0-41.6	3,985	955	23	22.0-25.0	1,605	726	42	39.8-45.2
\$50,000 - \$74,999	1,735	655	39	36.0-41.1	1,735	389	23	20.5-25.0	734	337	45	41.4-49.3
\$75,000 +	1,553	590	40	37.1-42.7	1,553	283	19	16.4-20.7	682	330	46	42.2-50.3
<b>Race:</b>												
White	11,453	4,222	38	36.5-38.6	11,453	2,577	22	21.4-23.2	4,595	1,966	41	39.5-42.7
African American	1,792	626	35	31.7-37.5	1,792	651	34	30.7-36.5	1,007	399	40	35.7-44.1
Asian American	255	72	30	23.3-37.3	255	23	9	4.4-12.9	127	33	23	14.4-31.1
Native American	222	63	31	22.8-39.8	222	92	36	27.7-44.4	121	58	44	32.4-56.6
Hispanic Origin	1,748	695	41	37.8-44.0	1,748	442	24	21.3-26.4	1,210	442	34	30.2-37.8
<b>Place of Residence:</b>												
Rural	6,865	2,584	38	36.9-39.6	6,865	1,636	24	22.5-24.9	2,755	1,144	40	37.7-41.8
Urban	5,465	1,965	37	35.1-38.2	5,465	1,181	21	20.0-22.6	2,214	956	42	39.3-44.0
<b>Body Mass Index (BMI)</b>												
Under 25									1,838	395	21	18.7-23.0
25.0-29.9									1,492	646	42	38.8-44.3
30.0 +									1,161	801	67	64.1-70.5

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.



# CONSUMPTION OF FRUITS AND VEGETABLES

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Vegetables, fruits and grains are good sources of complex carbohydrates and dietary fiber, as well as vitamins, minerals, antioxidants, and phytochemicals that are important for good health. They are also generally low in fat. Studies suggest that water-soluble fibers from foods such as oat bran, beans, and certain fruits are associated with lower blood sugar and blood lipid levels. Dietary patterns that incorporate higher intake of vegetables, fruits and grains are associated with a variety of health benefits, including a reduced risk of some types of cancer.

The 2000 Dietary Guidelines for Americans recommend five or more servings of fruits and vegetables per day for good nutrition. A new set of dietary guidelines is issued every five years. The 2005 Dietary Guidelines place stronger emphasis on reducing calorie consumption and increasing physical activity to help consumers control their weight, while still encouraging a healthy balance of nutritious foods. The new Guidelines suggest 7 to 10 servings of fruits and vegetables per day or about 4 ½ cups of these foods daily for the “average” adult.

## Definitions

BRFSS respondents were asked a series of questions about the foods they usually eat and drink. They were asked how often they:

- Drink fruit juices such as orange, grapefruit, or tomato
- Eat fruit, not counting juice
- Eat green salad
- Eat potatoes (not including French fried, fried potatoes, or potato chips)
- Eat carrots.

They were also asked how many servings of vegetables they usually eat (not counting carrots, potatoes, or salad).

Responses to the fruit and vegetable consumption questions were then summarized to arrive at the number of times per day each respondent eats fruits and vegetables. Although the BRFSS does not provide data on the number of servings of fruits and vegetables consumed each day, the information on number of times these foods are eaten is still useful for comparison with the national guidelines.

These questions were asked in the 2002 and 2003 surveys, but not in the 2001 BRFSS.

## Current Prevalence

Altogether, only 18 percent of respondents to the 2002-2003 Nebraska BRFSS reported consuming fruits and vegetables the recommended five or more times daily (Figure 89).

Equal proportions of respondents stated they eat these food items “three or four times per day” (39 percent) or “one or two times per day” (39 percent). Four percent consume fruits and vegetables fewer than once a day or never do. Overall, 82 percent of adults ate fruits and vegetables less frequently than the five or more times daily needed for good nutrition.

## Trend over Time

Over the past ten years, the proportion of respondents who reported consuming these foods five or more times per day has ranged from lows of 18 percent in 1998 and the current study to 22 percent in 1996 (Figure 90).

## Who's at Risk in Nebraska?

Women (23 percent) were significantly more likely than men (13 percent) in Nebraska to consume fruits and vegetables five or more times daily (Figure 91). Women were less likely than men to say that they never eat these foods or do so no more than twice a day.

Adults aged 65 and older (27 percent) were significantly more likely than younger persons to report adequate levels of fruits and vegetables in their diets (Table 30). Persons aged 30 to 44 (14 percent) and those in the 18-to-29 age bracket (16 percent) were least likely to consume these foods the recommended five or more times per day.

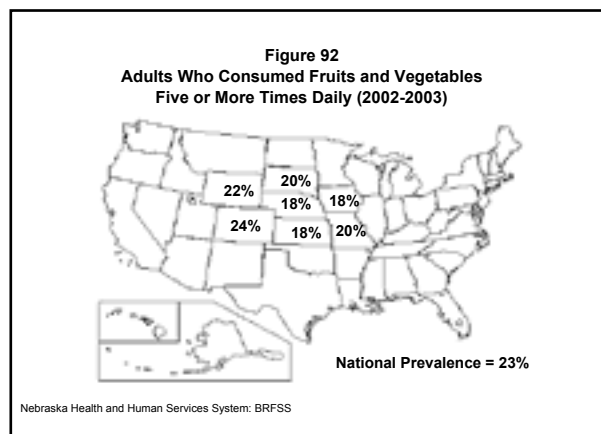
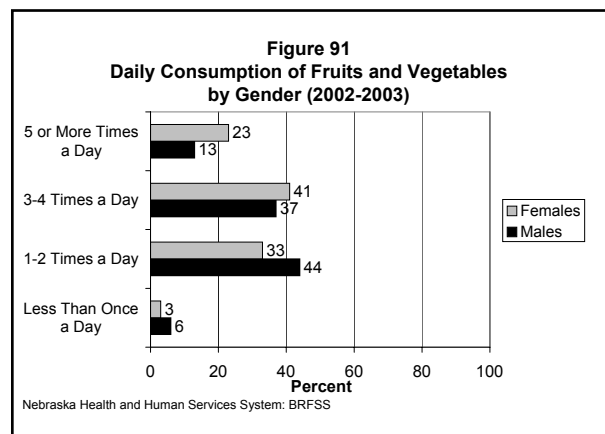
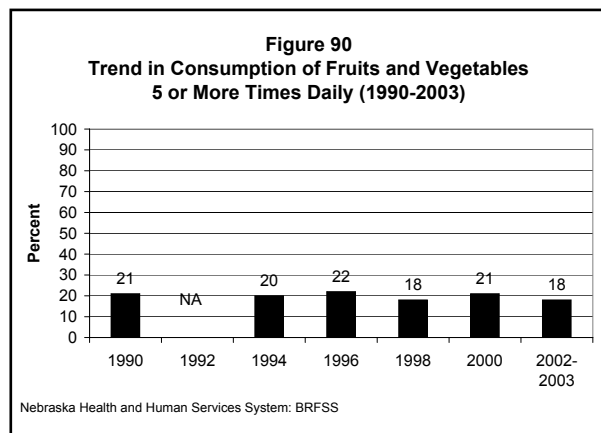
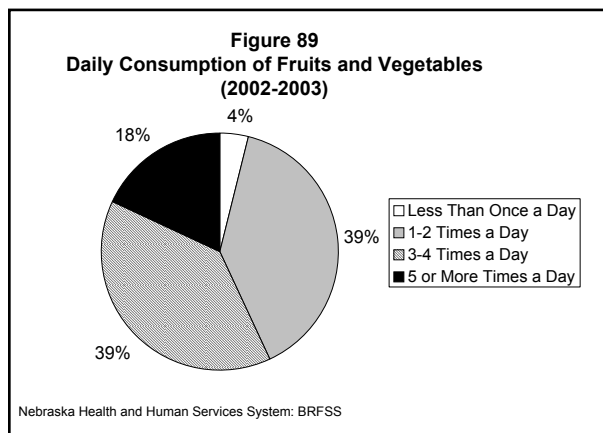
The proportion of college graduates who met the five-a-day guidelines (21 percent) was significantly higher than the proportion reported for respondents with less education (14 to 17 percent).

Asian American (24 percent) and white (18 percent) Nebraskans were significantly more likely than Hispanic Nebraskans (14 percent) to indicate they eat fruits and vegetables the recommended five or more times daily.

No trends were apparent by income or place of residence of respondents.

## Nebraska and the Nation

An average of 23 percent of BRFSS respondents nationwide reported consuming fruits and vegetables five or more times per day in 2002-2003 (Figure 92). Nebraska, with 18 percent, ranked well below the national median, along with Iowa and Kansas (18 percent each). Missouri and South Dakota fared somewhat better (20 percent), while Wyoming (22 percent) and Colorado (24 percent) achieved the highest rates among the seven states.



<b>TABLE 30</b> <b>Fruit and Vegetable Consumption</b> <b>Nebraska Adults, 2002-2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>				
	Eat 5+ Fruits or Vegetables Daily			
	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	9,358	1,801	18	17.0-18.8
<b>Gender:</b>				
Male	3,603	491	13	11.8-14.4
Female	5,755	1,310	23	21.3-23.8
<b>Age:</b>				
18-29	1,322	194	16	13.2-17.9
30-44	2,600	381	14	12.3-15.4
45-64	3,011	571	18	16.2-19.2
65 +	2,376	638	27	25.1-29.1
<b>Education:</b>				
<High School	762	115	14	10.9-16.6
High School	3,145	540	16	14.8-18.0
Some College	2,705	511	17	15.8-19.0
College Degree	2,727	630	21	19.7-23.2
<b>Income:</b>				
<\$15,000	764	130	17	13.7-20.4
\$15,000 - \$24,999	1,750	312	16	14.0-18.3
\$25,000 - \$49,999	2,940	593	18	16.6-19.8
\$50,000 - \$74,999	1,373	250	17	14.7-19.0
\$75,000 +	1,211	237	20	17.0-22.3
<b>Race:</b>				
White	8,640	1,692	18	17.1-19.0
African American	1,531	238	15	12.7-17.6
Asian American	210	50	24	16.3-31.0
Native American	185	32	19	11.2-26.4
Hispanic Origin	1,830	258	14	11.4-15.7
<b>Place of Residence:</b>				
Rural	5,213	1,024	18	17.1-19.6
Urban	4,145	777	17	16.0-18.8
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.				

# FOLIC ACID

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The Centers for Disease Control and Prevention, the March of Dimes, and the National Council on Folic Acid are active in the National Folic Acid Campaign to promote the use of folic acid to prevent spina bifida and anencephaly, which are serious birth defects. These defects occur when the fetal neural tube fails to close fully, interrupting the development of the central nervous system.

Research has shown that, if taken before and during early pregnancy, folic acid can prevent 70 percent of these birth defects. In Nebraska, these birth defects occurred in an average of 3.4 births per 1,000 over the five-year period 1999-2003.

The goal of the folic acid campaign is to educate all women who could possibly become pregnant to consume 400 micrograms of folic acid daily from vitamin supplements and/or fortified foods, in addition to eating certain foods containing folic acid.

## **FOLIC ACID INTAKE BY WOMEN AGED 18 TO 44 YEARS**

### **Definition**

Optimal Folic Acid Intake: Currently taking multivitamins or other vitamin pills or supplements containing folic acid daily or more often.

### **Current Prevalence of Folic Acid Use**

More than one-half (57 percent) of women aged 18 to 44 participating in the 2001-2003 Nebraska BRFSS stated that they currently take vitamin pills or supplements. Of those, 94 percent reported taking either a multivitamin or another supplement containing folic acid. This translates into 50 percent of all women in this age group taking folic acid.

### **Who's Taking Folic Acid in Vitamin or Supplement Form?**

Women aged 30 to 44 (53 percent) were significantly more likely than women aged 18 to 29 (46 percent) to take folic acid (Table 31).

A significantly greater proportion of women with college degrees (60 percent) reported taking folic acid, compared to women with lower levels of education. Women with some college or technical training (50 percent) were significantly more likely than those with less than a high school education to take this supplement (36 percent). Among high school graduates, 44 percent stated that they take multivitamins or other supplements containing folic acid.

White women aged 18 to 44 (53 percent) were significantly more likely than African American (34 percent), Asian American (32 percent), and Hispanic American (32 percent) women to report that they take folic acid.

Although rural women (52 percent) were slightly more likely than urban women (49 percent) to take this supplement, the difference was not statistically significant.

### **Daily Folic Acid Use**

Among women taking a multivitamin or other vitamin containing folic acid, 93 percent indicated they take them daily or more often. Based on these findings and assuming that the vitamins they are taking contain 400 micrograms of folic acid, 46 percent of all women aged 18 to 44 participating in the survey were receiving the optimal level of folic acid through dietary supplements.

Daily use of vitamins or supplements containing folic acid was very consistent among all demographic groups in Table 31. None of the differences were found to be significant.

## Awareness of Reason for Taking Folic Acid

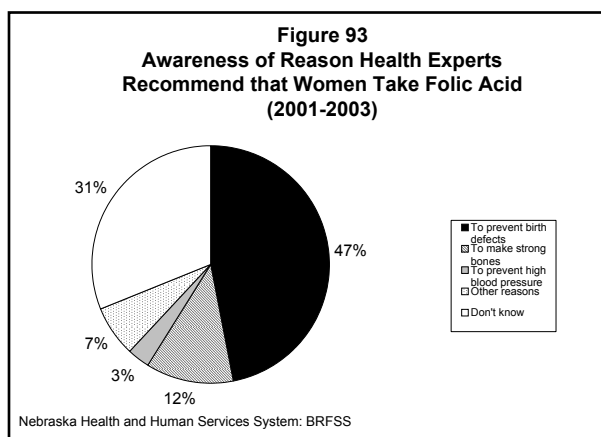
Women aged 18 to 44 were read the following question, “Some health experts recommend that women take 400 micrograms of the B vitamin folic acid, for which one of the following reasons: To make strong bones? To prevent birth defects? To prevent high blood pressure? Some other reason?”

Overall, about one-half of the women in this age group (47 percent) were able to correctly state that health experts recommend taking folic acid to prevent birth defects (Figure 93). However, 22 percent gave incorrect responses (“to make strong bones”, “to prevent high blood pressure” or other reasons). Nearly one-third (31 percent) indicated they did not know the reason women should take folic acid.

Women who had some college or technical training (47 percent) were significantly more likely than women with a high school diploma (35 percent) or less than a high school education (28 percent) to correctly identify the reason for taking folic acid (Table 31). Women with college degrees (62 percent) were significantly more likely than those at each of the other educational levels to say folic acid is taken to prevent birth defects.

The proportion of white women aged 18 to 44 who stated the correct reason for taking folic acid (49 percent) was significantly higher than the proportions for each of the other racial or ethnic groups. About one-third of Hispanic (34 percent) and Native American (32 percent) women gave correct responses, as did 27 percent of Asian American and 26 percent of African American women.

Differences in awareness of the reason for taking folic acid by age group, household income, or place of residence were not significant.



**TABLE 31**  
**Vitamin and Folic Acid Use**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	Women Aged 18-44 Taking Folic Acid				Women Aged 18-44 Taking Folic Acid Who Take Vitamins/Supplements Daily*				Women Aged 18-44 Who Say Reason for Taking Folic Acid Is to Prevent Birth Defects			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Women Aged 18-44</b>	3,364	1,769	50	48.4-52.4	1,759	1,619	93	91.1-93.8	3,233	1,537	47	44.7-48.8
<b>Age:</b>												
18-29	1,152	560	46	42.9-49.8	559	525	94	91.9-96.4	1,105	539	46	42.7-49.7
30-44	2,212	1,209	53	51.2-55.8	1,200	1,094	91	89.6-93.1	2,128	998	47	44.9-49.6
45-64	--	--	--	--	--	--	--	--	--	--	--	--
65 +	--	--	--	--	--	--	--	--	--	--	--	--
<b>Education:</b>												
<High School	196	72	36	27.8-44.2	71	65	91	83.0-99.0	179	46	28	19.8-36.9
High School	895	412	44	40.0-47.8	409	388	94	91.8-97.0	851	294	35	31.1-38.8
Some College	1,137	595	50	46.5-53.5	593	546	93	90.4-95.0	1,097	516	47	43.4-50.4
College Degree	1,132	689	60	57.2-63.6	685	619	91	88.8-93.3	1,104	679	62	58.6-64.9
<b>Income:</b>												
<\$15,000	289	131	43	35.3-50.8	131	116	92	88.2-96.4	269	104	41	33.1-49.1
\$15,000 - \$24,999	549	259	44	39.0-48.9	259	237	93	89.3-95.7	528	196	38	32.8-43.0
\$25,000 - \$49,999	1,152	615	52	48.4-55.0	611	567	93	90.9-95.2	1,117	566	50	46.9-53.7
\$50,000 - \$74,999	541	307	57	52.4-61.7	306	294	96	94.0-98.4	525	284	55	49.9-59.3
\$75,000 +	432	274	62	57.4-67.3	273	245	91	87.1-94.2	426	257	59	53.9-64.0
<b>Race:</b>												
White	2,984	1,632	53	50.8-55.0	1,624	1,493	92	91.0-93.8	2,878	1,421	49	46.6-50.9
African American	573	210	34	29.7-39.2	206	183	89	83.1-94.3	541	153	26	21.9-30.9
Asian American	116	50	32	22.1-41.7	50	44	93	87.2-99.2	110	37	27	17.4-36.6
Native American	66	32	47	31.8-61.8	32	#	#	#	65	17	32	18.3-45.6
Hispanic Origin	999	334	32	28.7-36.2	331	305	93	89.7-96.1	946	314	34	29.8-37.6
<b>Place of Residence:</b>												
Rural	1,669	901	52	48.8-54.5	895	833	94	92.0-95.3	1,611	736	45	42.6-48.3
Urban	1,695	868	49	46.4-51.9	864	786	91	89.2-93.4	1,622	801	48	45.2-51.0

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

\* As a percent of women aged 18 to 44 who take folic acid.

# - Data not reported due to N < 50.

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# PHYSICAL ACTIVITY LEVELS

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Regular physical activity is important at all stages of life for maintaining health, enhancing quality of life, and preventing premature death. On average, physically active people outlive those who are inactive.

According to the Surgeon General's Report on Physical Activity and Health, regular physical activity done at a moderate-intensity level can produce health benefits for people of all ages. This report points out that regular physical activity:

- Greatly reduces the risk of dying from coronary heart disease (the leading cause of death in the United States and in Nebraska);
- Decreases the risk of having a stroke;
- Reduces the risk of developing high blood pressure, diabetes and colon cancer;
- Enhances psychological wellbeing, combats the effects of stress, and reduces symptoms of anxiety and depression;
- Builds healthy bones, muscles, and joints;
- Increases lean muscle mass and decreases body fat.
- Aids in achieving and maintaining healthy body weight and is a key part of any weight loss effort;
- Helps older adults improve and maintain strength and agility, thus reducing falls and aiding them in maintaining an independent living status;
- Is associated with fewer hospitalizations, physician visits, and medications.

The Surgeon General's report concludes that sedentary persons can achieve major health gains by engaging in at least 30 minutes of moderate-intensity physical activity (such as brisk walking) on five or more days of the week. Individuals who already include moderate activity in their daily lives can see additional improvement in their health and fitness levels by including at least 20 minutes of vigorous-intensity physical activity on three or more days per week.

For those who do not currently participate in any leisure-time physical activity, beginning to exercise at any level of intensity or for even small periods of time is preferable to continuing to get no exercise at all. For anyone just starting to exercise, experts agree that it is best to begin with "small steps"—starting out slowly and gradually increasing the frequency and duration of physical activity--as the key to successful behavior change.

## **PHYSICALLY INACTIVE**

### **Definition**

Physically inactive: "No" to the question, "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

### **Current Prevalence**

In 2001-2003, one-fourth (25 percent) of Nebraska adults stated they had not participated in any physical activities or exercise outside of their regular job in the past month (Table 32).

### **Trend over Time**

The proportion of adults who were physically inactive during the month prior to the survey declined since 1989-1990 (29 percent) to a low of 23 percent in 1996 (Figure 94). Since that time, prevalence of physical inactivity rose again to 29 percent in the 1999-2000 BRFSS but dropped to the current rate of 25 percent for 2001-2003.

## Who's at Risk in Nebraska?

Women (26 percent) in this study were a little more likely than men (23 percent) to report no leisure-time physical activity in the past month (Table 32), but differences were not significant.

Young adults aged 18 to 29 (19 percent) were significantly less likely than adults aged 45 and older to say they were physically inactive. Adults aged 65 and older (33 percent) were significantly more likely than adults in the three younger age groupings to report being physically inactive in the past month.

Prevalence of physical inactivity was highest among respondents with the least education. In fact, significant differences were noted between each of the educational levels reported. Among respondents with less than a high school education, 43 percent reported no leisure-time physical activity during the past month, compared to one-third (33 percent) of high school graduates. Prevalence was significantly lower among persons with some college or technical training (20 percent) and among college graduates (13 percent).

In general, persons with lower incomes were more likely than were those with higher household incomes to report getting no exercise during their leisure hours. Respondents with incomes under \$25,000 per year were significantly more likely (32 to 35 percent) than those in each of the higher income categories to report being physically inactive during the past 30 days. Significant differences were also found among each of the higher income brackets. One-fourth of respondents in the middle income category (25 percent) were physically inactive, compared to only 15 percent of those with household incomes of \$50,000-\$74,999 and 11 percent of those with incomes of \$75,000 or above.

Hispanic Americans (45 percent) were significantly more likely than persons in each of the other racial or ethnic groups to report being inactive during the last 30 days (Figure 95). African Americans (36 percent) were also significantly more likely than white Nebraskans (24 percent) to say they were physically inactive in the last month.

The proportion of rural Nebraskans (26 percent) who indicated they were physically inactive was significantly higher than the proportion of urban residents (23 percent).

## Nebraska and the Nation

Nationwide, 24 percent of adult Americans reported no leisure-time physical activity during the past 30 days in 2001-2003, compared to 25 percent of Nebraska adults (Figure 96). Compared to the six surrounding states, Nebraska was at the higher end with Kansas (25 percent). Only Missouri (26 percent) reported a higher rate of physical inactivity. Rates in Colorado (18 percent) and Wyoming (21 percent) were much lower.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2003	US BRFSS 2001-2003	US 2010 Target
Proportion of adults aged 18 and older who did not participate in any leisure-time physical activity in the past month	15%	25%	24%	20%

## MODERATE AND VIGOROUS PHYSICAL ACTIVITY LEVELS

### Definitions

Respondents were read an introduction to the physical activity questions that explains the difference between “vigorous” and “moderate” activities. It states that, “Vigorous activities cause large increases in breathing or heart rate while moderate activities cause small increases in breathing or heart rate.” Examples of vigorous and moderate activities are given in the questions, with vigorous



activities including “running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate.” Examples of moderate exercise given are “brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate.”

Meets Moderate Physical Activity Guidelines: 30 or more minutes per day of moderate physical activity for five or more days per week.

Meets Vigorous Physical Activity Guidelines: 20 or more minutes per day of vigorous physical activity on three or more days per week.

## **Moderate Physical Activity**

### **Current Prevalence**

In 2001 and 2003 combined, 39 percent of adults in Nebraska participated in activities meeting the intensity, duration, and frequency requirements for moderate physical activity “in a usual week” (Table 32).

### **Trend over Time**

Due to changes in the questions asked, trends are not available.

### **Who Meets Recommended Guidelines for Moderate Physical Activity?**

The proportion of males participating in moderate physical activity (42 percent) was significantly larger than the proportion of females (37 percent).

Respondents in the youngest age group (18- to 29-year-olds) were significantly more likely than older respondents to have engaged in moderate physical activity in a usual week (46 percent). Persons aged 30 to 64 (39 percent) were also significantly more likely than those aged 65 and older (32 percent) to have participated in moderate physical activity.

The proportion of respondents who reported moderate physical activity in a usual week was significantly higher among college graduates (45 percent) than among high school graduates (36 percent) or persons with less than a high school education (34 percent).

Respondents with incomes of \$50,000 to \$74,999 (44 percent) or \$75,000 or more (49 percent) were significantly more likely to have engaged in moderate physical activity than respondents with incomes under \$25,000 (35 to 36 percent).

The proportion of white Nebraskans indicating that they participated in moderate physical activity in a usual week (39 percent) was significantly higher than proportions reported for Hispanic Americans (23 percent), African Americans (28 percent), or Asian Americans (29 percent) (Figure 97).

Adults living in urban counties (41 percent) were somewhat more likely than rural residents (38 percent) to report moderate physical activity, but the difference was not statistically significant.

## **Vigorous Physical Activity**

### **Current Prevalence**

In 2001 and 2003 combined, slightly less than one-fifth of BRFSS respondents (19 percent) participated in activities meeting the definition for vigorous physical activity stated above (Table 32).

### **Trend Over Time**

Trend data are not available due to changes in questions beginning in 2001.

### **Who Meets Recommended Guidelines for Vigorous Physical Activity?**

Men (23 percent) were significantly more likely than women (16 percent) to meet the recommended guidelines for vigorous physical activity.

Nearly one-third of young adults aged 18 to 29 years (31 percent) reported engaging in vigorous physical activity in a usual week. Among adults aged 30 to 44, about one-fifth (21 percent) met the guidelines for this level of activity. For adults aged 45 to 64, the participation rate was lower (16 percent), while adults 65 and older reported by far the lowest rate of participation in vigorous physical activity (seven percent). All differences by age group were statistically significant.

College graduates (28 percent) were the group most likely to meet the guidelines for vigorous physical activity (Figure 98). They were significantly more likely than persons with some college or technical training (20 percent) and persons with a high school education (14 percent) or less (10 percent) to report vigorous physical activity in a usual week. Persons with some college or technical training were also significantly more likely than high school graduates or persons who had not completed high school to have participated in this level of physical activity.

Nearly one-third of respondents with incomes of \$75,000 or higher (32 percent) and about one-fourth of those earning \$50,000 to \$74,999 (24 percent) indicated that, in a usual week, they engage in vigorous physical activity. These proportions are significantly higher than the proportions of respondents with lower incomes who are vigorously physically active. Only 17 percent of respondents with household incomes of \$25,000 to \$49,999 and 14 percent of those earning less than \$25,000 annually participated in vigorous activity meeting the recommended guidelines.

Although some differences were evident in vigorous physical activity participation rates by race or ethnic origin, most were not statistically significant. However, Hispanic Americans (14 percent) were significantly less likely than whites (19 percent) and Asian Americans (26 percent) to report that they engage in vigorous physical activity in a usual week.

Urban Nebraskans (23 percent) were significantly more likely than residents of rural counties in the state (15 percent) to meet the recommended guidelines for vigorous physical activity.

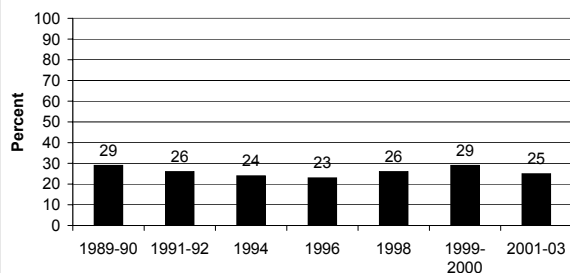
### **PHYSICAL ACTIVITY AT WORK**

In 2001 and 2003, respondents who were employed or self-employed were asked, “When you are at work, which of the following best describes what you do: Mostly sitting or standing? Mostly walking? Mostly heavy labor or physically demanding work?”

The greatest proportion of these respondents (61 percent) said that they mostly sit or stand while at work. About one-fifth (22 percent) do mostly walking while at their job, while 17 percent do heavy labor or physically demanding work. To some degree, these respondents who walk or do heavy labor on the job may be meeting the physical activity guidelines recommended for good health, but it is not possible to determine to what extent from the data collected here.

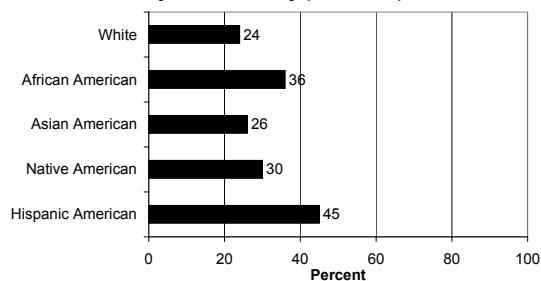
When activity at work was matched with responses to the questions about physical activity levels outside of work, there was little difference in responses by work activity levels (Table 33).

**Figure 94**  
Trend in Physical Inactivity  
Among Adults (1989-2003)



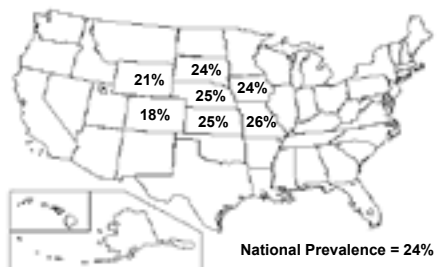
Nebraska Health and Human Services System: BRFSS

**Figure 95**  
Prevalence of Physical Inactivity  
by Race/Ethnicity (2001-2003)



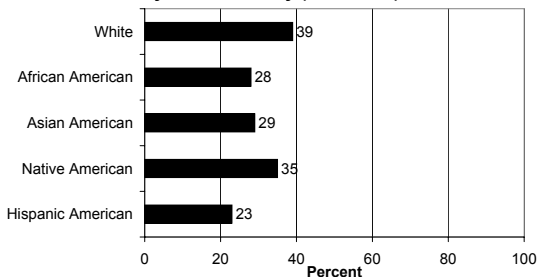
Nebraska Health and Human Services System: BRFSS

**Figure 96**  
No Leisure-Time Physical Activity in Past Month  
Adults Aged 18 and Older (2001-2003)



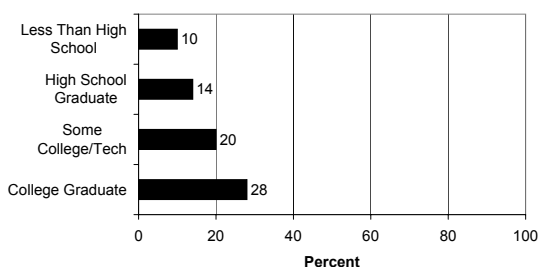
Nebraska Health and Human Services System: BRFSS

**Figure 97**  
Prevalence of Moderate Physical Activity  
by Race/Ethnicity (2001-2003)



Nebraska Health and Human Services System: BRFSS

**Figure 98**  
Prevalence of Vigorous Physical Activity  
by Education (2001-2003)



Nebraska Health and Human Services System: BRFSS

**TABLE 32**  
**Physical Activity**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAN)**

	No Physical Activity Outside Work				Meets Recommended Guidelines for Moderate Physical Activity (2001 + 2003)				Meets Recommended Guidelines for Vigorous Physical Activity (2001 + 2003)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	13,051	3,201	25	23.8-25.5	8,122	3,160	39	38.1-40.6	8,388	1,486	19	18.0-20.0
<b>Gender:</b>												
Male	5,024	1,138	23	22.1-24.9	3,188	1,321	42	39.5-43.5	3,254	705	23	20.9-24.3
Female	8,027	2,063	26	24.6-26.9	4,934	1,839	37	35.8-38.9	5,134	781	16	14.5-16.8
<b>Age:</b>												
18-29	1,998	369	19	16.8-21.1	1,312	622	46	43.1-49.6	1,328	410	31	27.9-33.9
30-44	3,597	770	23	21.1-24.5	2,245	897	39	37.2-41.7	2,290	492	21	19.3-23.0
45-64	4,138	980	25	23.4-26.5	2,633	1,027	39	36.4-40.6	2,708	445	16	14.4-17.4
65 +	3,233	1,050	33	31.2-34.9	1,892	601	32	30.0-34.8	2,019	134	7	5.5-8.0
<b>Education:</b>												
<High School	1,123	482	43	39.9-46.9	715	218	34	29.7-38.1	748	64	10	7.7-13.2
High School	4,464	1,426	33	31.4-34.8	2,789	986	36	33.6-38.0	2,888	374	14	12.3-15.6
Some College	3,780	786	20	18.2-21.1	2,314	930	41	38.1-42.8	2,401	434	20	18.0-21.9
College Degree	3,643	496	13	11.9-14.4	2,282	1,017	45	42.4-47.0	2,328	611	28	25.5-29.6
<b>Income:</b>												
<\$15,000	1,077	418	35	31.3-38.6	663	208	35	29.4-39.8	692	71	14	9.6-19.2
\$15,000 - \$24,999	2,392	774	32	29.9-34.6	1,427	473	36	32.4-38.6	1,483	176	14	11.5-16.0
\$25,000 - \$49,999	4,139	951	25	23.4-26.6	2,672	1,065	38	36.3-40.6	2,737	477	17	15.8-19.1
\$50,000 - \$74,999	1,808	267	15	13.2-16.9	1,124	498	44	40.4-46.8	1,142	276	24	21.6-27.1
\$75,000 +	1,602	176	11	9.3-13.1	1,039	504	49	45.8-52.7	1,054	320	32	28.4-34.8
<b>Race:</b>												
White	12,036	2,851	24	22.6-24.4	7,503	2,927	39	38.0-40.6	7,751	1,359	19	17.7-19.7
African American	1,932	711	36	32.7-38.4	1,294	335	28	24.1-31.5	1,350	230	20	16.2-23.3
Asian American	282	72	26	19.5-32.9	190	53	29	21.7-37.2	193	46	26	18.6-33.5
Native American	231	71	30	22.0-37.8	157	56	35	25.3-45.2	162	29	22	13.3-31.6
Hispanic Origin	2,326	999	45	41.8-47.3	1,612	388	23	20.3-25.6	1,639	244	14	12.1-16.6
<b>Place of Residence:</b>												
Rural	7,263	1,890	26	24.8-27.3	4,464	1,684	38	36.7-40.1	4,644	673	15	14.1-16.5
Urban	5,788	1,311	23	21.6-24.3	3,658	1,476	41	38.7-42.5	3,744	813	23	21.8-25.2

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

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# HIGH BLOOD PRESSURE

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High blood pressure (also known as hypertension) is a major risk factor for coronary heart disease and stroke, two of the leading causes of death in Nebraska and the nation. It is defined as a condition in which blood pressure is consistently elevated (systolic pressure of 140 mm Hg or higher and/or diastolic pressure of 90 mm Hg or higher). Prehypertension is systolic pressure of 120-139 mm Hg, or diastolic pressure of 80-89 mm Hg.

According to the American Heart Association, an estimated 65 million Americans had high blood pressure and nearly 50,000 died from it in 2002. An additional 59 million are thought to have prehypertension. Of those with hypertension, 30 percent don't know they have it, 25 percent are on medication but don't have their blood pressure under control, and 11 percent aren't on medication. The remaining 34 percent have controlled hypertension.

## Definition

Have high blood pressure: Respondents who reported they had ever been told by a doctor, nurse or other health professional that they have high blood pressure.

Hypertension questions were asked in the 2001 and 2003 surveys, but not in the 2002 BRFSS.

## Current Prevalence

Using this definition, 23 percent of respondents to the Nebraska BRFSS said they had been told by a health professional that their blood pressure is high (Table 34).

## Trend over Time

The proportion of adults in Nebraska who have ever been told they have high blood pressure has remained fairly stable, ranging from 20 to 23 percent between 1987 and 2003 (Figure 99).

## Who's at Risk in Nebraska?

Prevalence of high blood pressure increased significantly with advancing age (Figure 100). The proportion of 30- to 44-year-olds with hypertension (12 percent) was twice as high as the proportion among 18- to 29-year-olds (6 percent). Thirty percent of respondents aged 45 to 64 reported having hypertension. Among adults 65 and older, more than one-half (52 percent) had been told by a health professional that their blood pressure is high.

Respondents with a high school education (27 percent) or less (32 percent) were significantly more likely than college graduates (19 percent) or respondents with some college or technical training (21 percent) to have diagnosed hypertension.

Respondents with household incomes below \$25,000 per year (28 to 34 percent) were significantly more likely to have been told they have high blood pressure than those with higher annual incomes. Among respondents earning \$25,000 to \$49,999 per year, 22 percent reported having hypertension, as did 16 to 17 percent of those earning \$50,000 or more per year.

Prevalence of diagnosed high blood pressure was significantly higher among African American and Native American respondents (37 percent each), compared to white (24 percent), Hispanic (11 percent) or Asian American (10 percent) respondents (Figure 101). White Nebraskans were also significantly more likely than Hispanic Americans or Asian Americans to have hypertension.

A significantly greater proportion of rural Nebraskans (25 percent) stated that they had been told by a doctor or other health professional that their blood pressure was high, compared to urban Nebraskans (21 percent).

## Nebraska and the Nation

Prevalence of diagnosed hypertension was somewhat lower among Nebraska adults (23 percent) than the national median rate of 25 percent (Figure 102). Of the six surrounding states, only Colorado reported a lower rate (21 percent), while the Wyoming rate (23 percent) matched Nebraska's estimated prevalence. The other states' rates ranged from 24 percent for Kansas and South Dakota to 27 percent for Missouri.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001+2003	US BRFSS 2001+2003	US 2010 Target
Proportion of adults aged 18 and older with high blood pressure (among those who ever had it checked)	16%	23%	25%	16%

## Medication for High Blood Pressure

### Definition

Currently taking medication for high blood pressure: "Yes" to question "Are you currently taking medicine for your high blood pressure?"

### Current Prevalence

Among respondents who had ever been told by a doctor or other health professional that their blood pressure is high, 77 percent said they were currently taking medication for this condition (Table 34).

### Who's Taking Medication for High Blood Pressure?

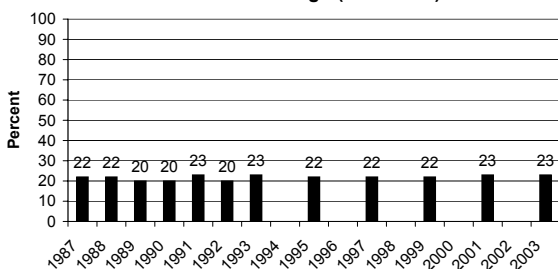
Women (82 percent) were significantly more likely than men (70 percent) with hypertension to be taking medicine for it.

The proportion of respondents who were taking medication for high blood pressure rose significantly with increasing age of respondents (Figure 103). Among persons aged 30 to 44, less than one-half (45 percent) were taking drugs for this condition, compared to more than three-fourths (78 percent) of 45- to 64-year-olds. Nine of every ten (92 percent) respondents aged 65 or older who had hypertension reported taking medication for it.

African American (84 percent) and white (77 percent) respondents were significantly more likely than Hispanic (59 percent) or Native American (54 percent) adults with hypertension to take drugs for this condition (Figure 104).

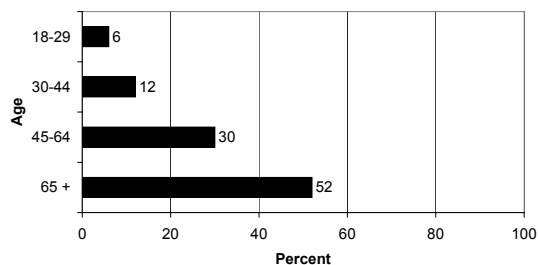
No significant differences in proportion of respondents taking medication for their high blood pressure were found by education, income, or place of residence of respondents.

**Figure 99**  
Trend in Proportion of Adults Ever Told Their  
Blood Pressure Is High (1987-2003)



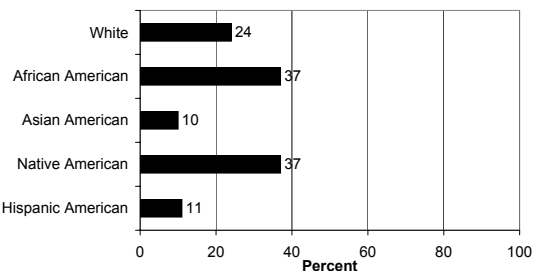
Nebraska Health and Human Services System: BRFSS

**Figure 100**  
Adults Ever Told Their Blood Pressure Is High  
by Age (2001 + 2003)



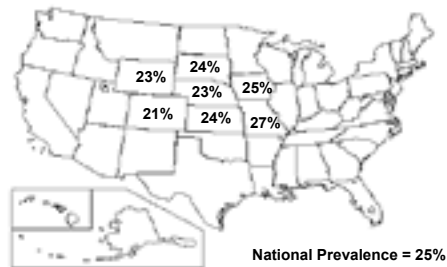
Nebraska Health and Human Services System: BRFSS

**Figure 101**  
Adults Ever Told Their Blood Pressure Is High  
by Race/Ethnic Origin (2001 + 2003)

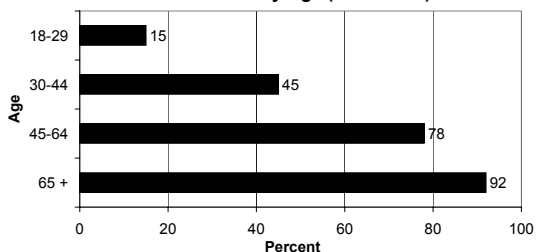


Nebraska Health and Human Services System: BRFSS

**Figure 102**  
Adults Who Were Ever Told Their Blood  
Pressure Was High (2001 + 2003)

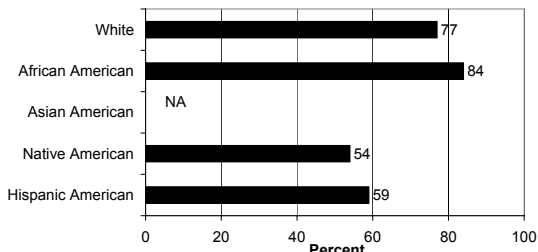


**Figure 103**  
Adults Currently Taking Medication for High  
Blood Pressure\* by Age (2001+2003)



\*Among adults ever told they have high blood pressure.  
Nebraska Health and Human Services System: BRFSS

**Figure 104**  
Adults Currently Taking Medication for High  
Blood Pressure\* by Race/Ethnicity (2001+2003)



\*Among adults ever told they have high blood pressure.  
Nebraska Health and Human Services System: BRFSS

<b>TABLE 34</b> <b>Hypertension Screening and Awareness</b> <b>Nebraska Adults, 2001-2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Ever Told Have High Blood Pressure by Health Professional				Currently Taking Medication for High Blood Pressure (Among Those Ever Told BP Is High)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Total Adults</b>	8,660	2,313	23	22.4-24.4	2,279	1,798	77	74.4-78.7
<b>Gender:</b>								
Male	3,373	870	23	21.1-24.2	867	632	70	66.6-73.8
Female	5,287	1,443	24	22.7-25.2	1,412	1,166	82	80.1-84.5
<b>Age:</b>								
18-29	1,370	83	6	4.2-7.1	76	13	15	5.4-24.3
30-44	2,358	283	12	10.1-12.9	266	129	45	38.6-51.8
45-64	2,787	841	30	27.8-31.7	837	651	78	75.2-81.5
65 +	2,086	1,092	52	49.5-54.4	1,086	991	92	90.1-93.6
<b>Education:</b>								
<High School	776	297	32	28.3-35.6	294	240	78	71.7-83.8
High School	2,993	932	27	25.0-28.6	918	753	80	76.8-83.4
Some College	2,477	603	21	19.2-22.6	597	460	75	70.4-78.6
College Degree	2,383	471	19	16.8-20.2	460	336	71	66.4-76.0
<b>Income:</b>								
<\$15,000	721	305	34	29.8-38.2	299	237	76	70.2-82.1
\$15,000 - \$24,999	1,517	504	28	25.7-30.9	497	400	77	71.4-81.8
\$25,000 - \$49,999	2,804	687	22	20.4-23.9	679	530	77	73.2-80.6
\$50,000 - \$74,999	1,172	213	17	15.0-19.7	208	145	68	60.8-74.8
\$75,000 +	1,073	180	16	13.8-19.2	176	129	73	65.1-80.3
<b>Race:</b>								
White	7,994	2,167	24	22.9-25.0	2,134	1,700	77	75.3-79.6
African American	1,097	479	37	33.5-41.0	563	483	84	79.6-88.1
Asian American	161	21	10	4.8-15.9	25	#	#	#
Native American	139	55	37	26.6-48.0	58	38	54	36.4-71.6
Hispanic Origin	1,410	210	11	9.3-13.4	250	150	59	50.7-66.9
<b>Place of Residence:</b>								
Rural	4,798	1,360	25	23.7-26.5	1,341	1,075	78	75.4-80.6
Urban	3,862	953	21	19.8-22.7	938	723	74	71.0-78.0
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses. # - Data not reported due to N < 50.								



# CHOLESTEROL SCREENING

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High blood cholesterol is a major risk factor for coronary heart disease. Persons with elevated blood cholesterol levels (total cholesterol of 200 mg/dL or higher) are at increased risk of developing coronary artery disease. However, studies have shown that even a small reduction in cholesterol level can be effective in lowering risk.

An estimated 105 million Americans have blood cholesterol levels of 200 mg/dL or higher, according to the 2001 National Health and Nutrition Examination Survey. The National Cholesterol Education Program recommends that blood cholesterol levels be checked at least once every five years in healthy adults aged 20 and older. For those with elevated readings, recommended lifestyle changes include a diet low in saturated fat and cholesterol, increasing physical activity, and losing excess weight. For many people with high cholesterol, diet and exercise alone are enough to bring it down to a satisfactory level. For the remainder, cholesterol-lowering drugs are available that may be effective in reducing cholesterol levels.

Cholesterol screening questions were asked in the 2001 and 2003 Nebraska BRFSS, but not in 2002.

## **EVER CHECKED/CHECKED WITHIN LAST FIVE YEARS**

### **Definitions**

Ever checked: “Yes” to question “Blood cholesterol is a fatty substance found in the blood. Have you ever had your blood cholesterol checked?”

Checked within the last five years: Respondents whose replies to question “About how long has it been since you last had your blood cholesterol checked?” indicate testing within last five years.

### **Current Prevalence**

Nearly three-fourths of respondents in 2001 and 2003 combined (72 percent) stated they had at some time had their blood cholesterol level checked (Table 35).

Most of the survey respondents (66 percent of the total or 94 percent of those who ever had it tested) said they had their blood cholesterol level checked within the past five years.

### **Trend over Time**

The proportion of Nebraska adults who had a blood cholesterol test done in the past five years has increased substantially since 1987 when fewer than one-half (47 percent) reported having this screening done in the five years prior to the study (Figure 105). Prevalence of cholesterol testing rose steadily between 1987 and 1991 then leveled off at 60 to 62 percent through 1995. Since then, prevalence has increased to the 2003 rate of 67 percent.

### **Who’s Received Screening in Nebraska?**

Nebraska women (69 percent) were significantly more likely than men in the state (63 percent) to indicate they had their cholesterol level checked within the past five years (Table 35).

Older respondents were significantly more likely than younger ones to say that they had this screening done in the past five years (Figure 106). Only 39 percent of respondents aged 18 to 29 years and 60 percent of those aged 30 to 44 years reported this testing. The proportion was significantly higher among respondents aged 45 to 64 (80 percent) and those aged 65 and older (86 percent).

The proportion of adults with college degrees who had cholesterol testing done in the past five years (74 percent) was significantly greater than the proportions reported for persons with all lower levels of education (Table 35). Similarly, persons with some college or technical training (66 percent) were

significantly more likely to report testing during the five-year period than persons who had not completed high school (57 percent). Among high school graduates, 63 percent stated they had their cholesterol levels tested during the past five years.

Respondents with household incomes below \$15,000 per year were the group least likely to have cholesterol testing in the past five years (56 percent). Among those with incomes of \$15,000 to \$49,999, 64 percent reported this testing. Persons with annual incomes of \$50,000 to \$74,999 (74 percent) or incomes of \$75,000 (78 percent) were significantly more likely than were persons in either of these lower income groups to indicate they had been tested in the last five years.

Respondents of Hispanic origin were the racial/ethnic group least likely to report cholesterol testing in the five years prior to the survey (41 percent). They were significantly less likely than white Nebraskans (68 percent), African Americans (67 percent), Native Americans (65 percent), and Asian Americans (56 percent) to have been tested during this time period (Figure 107). The rate for Asian Americans was also significantly lower than the rate for whites in this study.

No significant differences were reported between residents of rural (66 percent) and urban (67 percent) areas of the state.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001+2003	US BRFSS 2001+2003	US 2010 Target
Proportion of adults aged 18 and older who had blood cholesterol checked in past five years	80%	66%	73%	80%

## **EVER TOLD CHOLESTEROL IS HIGH**

### **Definition**

Ever told cholesterol is high: Respondents who have ever had their blood cholesterol level checked and were told it was high by a doctor, nurse, or other health professional.

### **Current Prevalence**

Among respondents who reported ever having their blood cholesterol level checked, 29 percent said their doctor or other health professional told them it is high (Table 35).

### **Trend over Time**

The proportion of respondents who had ever been told their cholesterol level is high has increased somewhat since the 1989-1990 BRFSS (Figure 108), when 24 percent of those who had the screening done were told it was high. Since 1993, prevalence has ranged from 27 percent to the 2003 high of 31 percent.

### **Who's at Risk in Nebraska?**

The proportion of men who had ever been told their cholesterol level was high (31 percent) was slightly higher than the proportion of women (28 percent), but the difference was not significant.

The proportion of respondents who were told they have elevated blood cholesterol levels increased significantly with advancing age for the age brackets shown (Figure 109). Only 11 percent of young adults aged 18 to 29 reported high cholesterol, compared to 19 percent of adults aged 30 to 44. More than one-third (35 percent) of 45- to 64-year-olds and 41 percent of persons aged 65 and older had been told by a health professional that their blood cholesterol was elevated.

High school graduates (33 percent) were significantly more likely than persons with more education to report high blood cholesterol levels (Table 35). Among college graduates, 26 percent indicated they had high cholesterol as did 28 percent of respondents with some college or technical training.

Prevalence of high cholesterol appeared to be slightly higher among respondents with lower incomes, but differences were not significant.

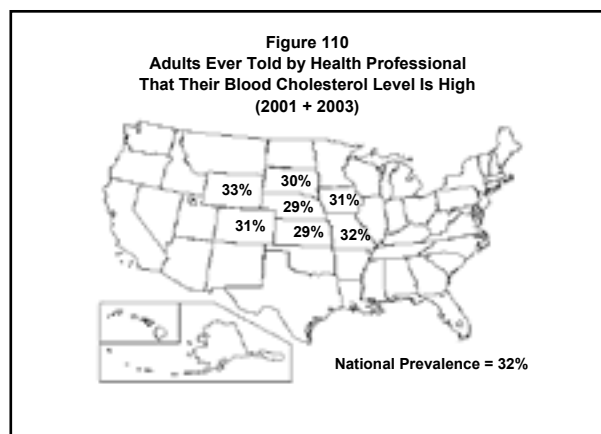
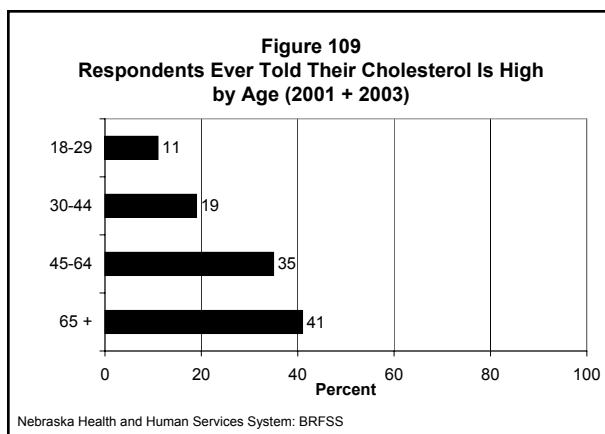
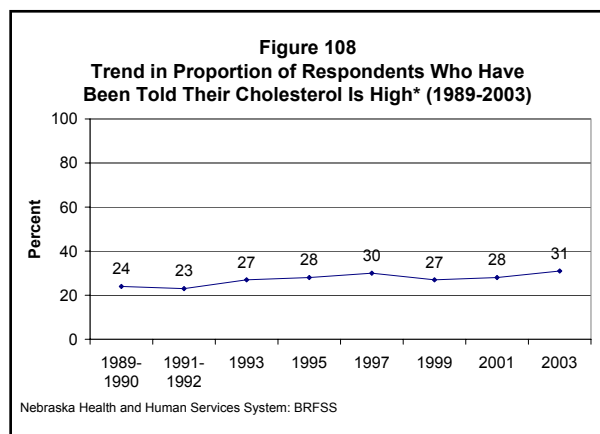
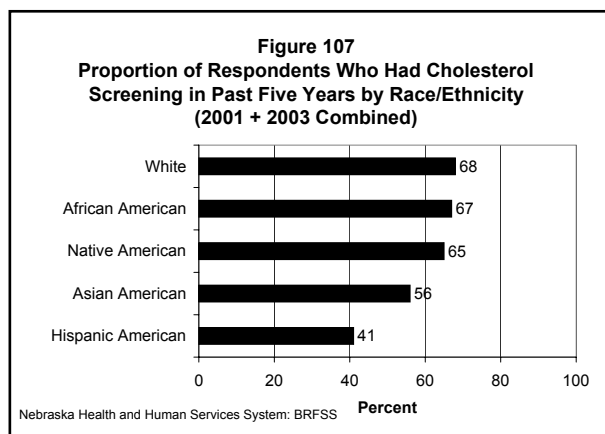
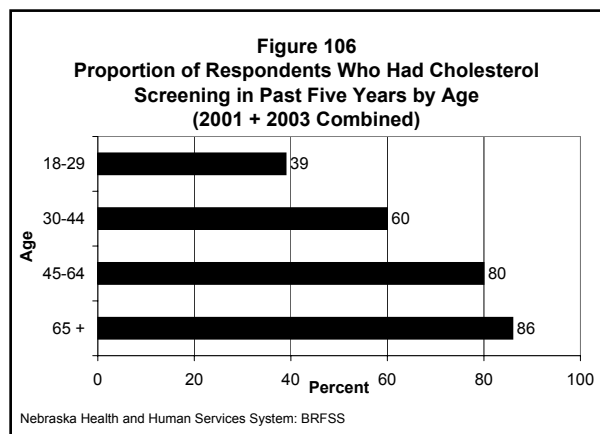
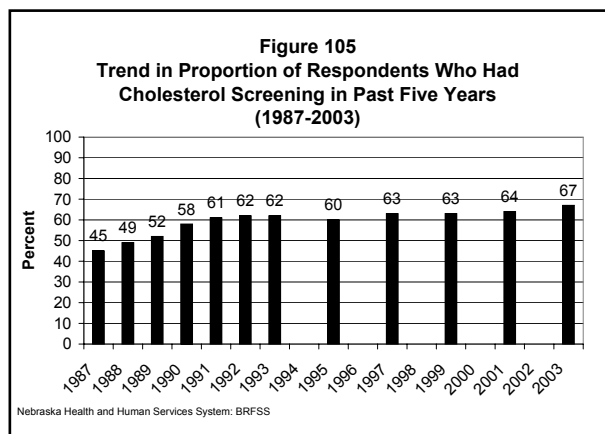
White Nebraskans (30 percent) were significantly more likely than Hispanic Americans (21 percent) to ever have been told they had high cholesterol. Other differences by race were not significant.

Rural Nebraskans (31 percent) were significantly more likely than urban residents (27 percent) to report having elevated blood cholesterol levels.

### Nebraska and the Nation

Nationwide, 32 percent of adults screened said they had been told by a doctor, nurse, or other health professional that their blood cholesterol is high (Figure 110). Nebraska and Kansas (29 percent each) reported the lowest prevalence of elevated blood cholesterol. South Dakota (30 percent), Colorado (31 percent) and Iowa (31 percent) all ranked just below the national median.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001+2003	US BRFSS 2001+2003	US 2010 Target
Prevalence of high blood cholesterol in adults aged 18 and older (% of those screened)	17%	29%	32%	17%



**TABLE 35**  
**Cholesterol Screening and Awareness**  
**Nebraska Adults, 2001 and 2003 Combined**  
**(with 95% Confidence Intervals--SUDAAN)**

	Ever Had Cholesterol Checked				Had Cholesterol Checked in Past 5 Years (As % of Total Respondents)				Ever Told by Health Professional That Cholesterol is High			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Total Adults</b>	8,532	6,524	72	70.4-72.8	8,532	6,054	66	65.1-67.4	6,449	1,976	29	28.0-30.4
<b>Gender:</b>												
Male	3,328	2,446	69	66.8-70.7	3,328	2,259	63	61.4-65.3	2,414	780	31	29.0-33.2
Female	5,204	4,078	74	72.8-75.8	5,204	3,795	69	67.5-70.5	4,035	1,196	28	26.0-29.1
<b>Age:</b>												
18-29	1,321	612	43	39.9-46.1	1,321	557	39	36.0-42.2	608	61	11	7.8-14.1
30-44	2,330	1,586	66	64.0-68.5	2,330	1,445	60	57.6-62.1	1,577	299	19	16.9-21.2
45-64	2,775	2,419	86	84.5-87.7	2,775	2,263	80	78.8-82.0	2,397	842	35	33.0-37.4
65 +	2,048	1,869	91	89.3-92.5	2,048	1,755	86	84.4-87.6	1,829	761	41	38.5-43.5
<b>Education:</b>												
<High School	756	532	63	59.1-67.7	756	478	57	52.8-61.4	515	164	29	24.8-33.4
High School	2,949	2,173	67	65.1-69.5	2,949	2,037	63	60.8-65.1	2,139	743	33	31.1-35.8
Some College	2,443	1,848	71	69.1-73.5	2,443	1,716	66	63.7-68.2	1,837	552	28	25.9-30.5
College Degree	2,355	1,951	80	78.4-82.3	2,355	1,806	74	72.3-76.2	1,938	509	26	23.4-27.7
<b>Income:</b>												
<\$15,000	705	512	62	56.2-67.1	705	465	56	50.9-61.8	505	189	34	29.5-38.8
\$15,000 - \$24,999	1,492	1,095	69	66.4-72.2	1,492	1,021	64	60.9-66.7	1,079	353	30	27.0-33.4
\$25,000 - \$49,999	2,771	2,065	69	67.2-71.5	2,771	1,913	64	61.8-66.1	2,050	648	30	28.1-32.6
\$50,000 - \$74,999	1,160	953	80	76.9-82.4	1,160	882	74	71.3-76.8	948	253	27	23.4-29.7
\$75,000 +	1,065	900	83	80.3-85.6	1,065	849	78	75.6-80.8	895	229	26	23.0-29.8
<b>Race:</b>												
White	7,880	6,111	73	71.8-74.2	7,880	5,669	68	66.4-68.8	6,039	1,859	30	28.2-30.8
African American	1,379	1,059	71	67.5-74.9	1,379	1,004	67	63.7-71.1	1,050	304	26	22.7-29.2
Asian American	193	107	59	50.6-67.1	193	101	56	47.8-64.2	106	27	28	17.1-38.1
Native American	164	112	67	56.8-77.2	164	106	64	54.3-74.6	110	34	31	18.9-43.5
Hispanic Origin	1,679	814	44	40.8-47.1	1,679	768	41	38.2-44.5	800	188	21	17.2-23.9
<b>Place of Residence:</b>												
Rural	4,723	3,578	72	70.1-73.3	4,723	3,283	66	64.0-67.2	3,530	1,142	31	29.3-32.8
Urban	3,809	2,946	72	69.6-73.3	3,809	2,771	67	65.2-68.9	2,919	834	27	25.2-28.8

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

# COLORECTAL CANCER SCREENING

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Colorectal cancer is the second leading cause of cancer deaths in Nebraska, accounting for 363 deaths in 2003. Risk factors for colorectal cancer include: increasing age, personal or family history of colorectal cancer or polyps, personal history of inflammatory bowel disease, physical inactivity, obesity, high alcohol consumption, and cigarette smoking.

Since about three-fourths of all colorectal cancer occurs in people with no known risk factors, regular screening is important. Although the screening guidelines published by various organizations differ, all agree that screening for asymptomatic persons with no personal or family history of colorectal cancer or related conditions should begin at age 50. Recommended screening methods include: either fecal occult blood testing annually, flexible sigmoidoscopy every five years, colonoscopy every ten years, double contrast barium enema every five years, or some combination of these approaches. In addition, all guidelines advise that high-risk individuals begin screening before age 50, increase the frequency of screening, or both.

Only respondents who were 50 years of age or older were asked questions about blood stool testing and proctoscopic exams in the 2001 and 2002 studies. This topic was not included in the 2003 Nebraska BRFSS.

## **BLOOD STOOL TESTING**

### **Definitions**

Ever had a blood stool test: “Yes” to the question, “A blood stool test is a test that may use a special kit at home to determine whether the stool contains blood. Have you ever had this test using a home kit?”

### **Current Prevalence**

Of all respondents aged 50 and older, 45 percent reported ever having a blood stool test, using a home kit.

Of all Nebraska respondents in this age group, 32 percent stated that they had this test done within the past two years (Figure 111). Thirteen percent had a blood stool test done more than two years ago. The remaining 55 percent had never had this screening done.

### **Who Has Received This Screening in the Past Two Years?**

Men (33 percent) and women (32 percent) were about equally likely to say they had a blood stool test in the preceding two years (Table 36).

A significantly greater proportion of adults aged 65 and older (37 percent) stated they had used a home kit to test for blood in the stools in the last two years, compared to adults aged 50 to 64 (28 percent).

Prevalence of blood stool testing increased with increasing levels of education. Among persons with less than a high school education, 27 percent reported having this screening done, while 32 percent of high school graduates and persons with some college or technical training had a blood stool test in the last two years. However, only the difference between college graduates (37 percent) and persons with less than a high school education was significant.

White Nebraskans in the 50-and-older age group (32 percent) were significantly more likely than Hispanic Nebraskans (23 percent) to say they had a blood stool test in the past two years. More than one-third (36 percent) of African Americans reported they were screened during this time period.

The proportion of urban residents who indicated they had a blood stool test in the last two years (37 percent) was significantly greater than the proportion reported by rural Nebraskans (29 percent).

Differences in prevalence by household income were not significant.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2002	US BRFSS 2001-2002	US 2010 Target
Percent of adults aged 50+ who had fecal occult blood test (blood stool test) in past two years (as % of total)	50%	32%	31%	50%

## **SIGMOIDOSCOPY OR COLONOSCOPY EXAMS**

### **Definition**

Ever had a sigmoidoscopy or colonoscopy: “Yes” to the question, “Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the bowel for signs of cancer or other health problems. Have you ever had either of these exams?”

### **Current Prevalence**

Forty percent of persons aged 50 and older responding to the 2001-2002 Nebraska BRFSS reported ever having a sigmoidoscopy or colonoscopy (Table 36).

Less than one-fourth of all adults aged 50 and over (23 percent) had their last sigmoidoscopy or colonoscopy within the last two years (Figure 112). Ten percent reported last having this exam between two and five years ago, while seven percent said it had been five years or more since they had a sigmoidoscopy or colonoscopy. Sixty percent had never had either of these examinations.

### **Trend over Time**

No trend data are available due to a change in the questions asked.

### **Who Has Received Screening?**

Men and women were about equally likely to report having these tests (40 percent each) (Table 36).

Respondents aged 65 and older (47 percent) were significantly more likely than those aged 50 to 64 (34 percent) to indicate they ever had a sigmoidoscopy or colonoscopy.

A significantly greater proportion of college graduates (45 percent) stated they ever had either of these tests, compared to persons who had not completed high school (34 percent). Forty percent of respondents who had some college or technical training and 39 percent of high school graduates reported ever having a sigmoidoscopy or colonoscopy.

Respondents with household incomes of \$75,000 or more per year (52 percent) were significantly more likely than those with lower incomes to indicate they ever had this testing (35 to 39 percent).

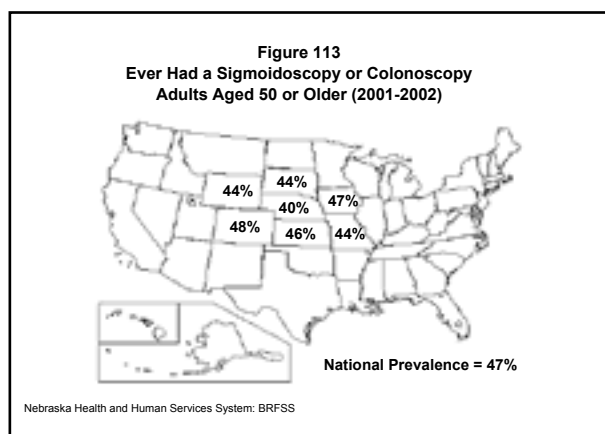
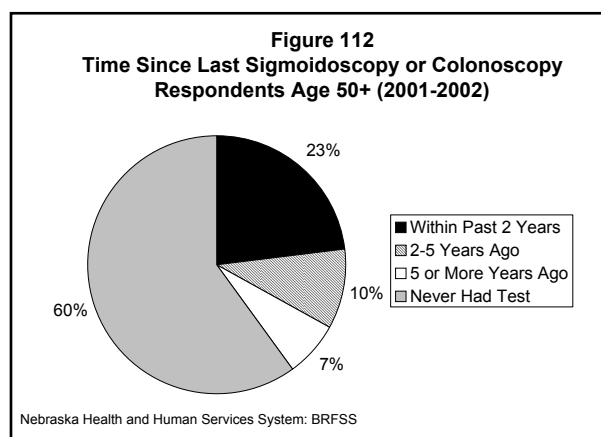
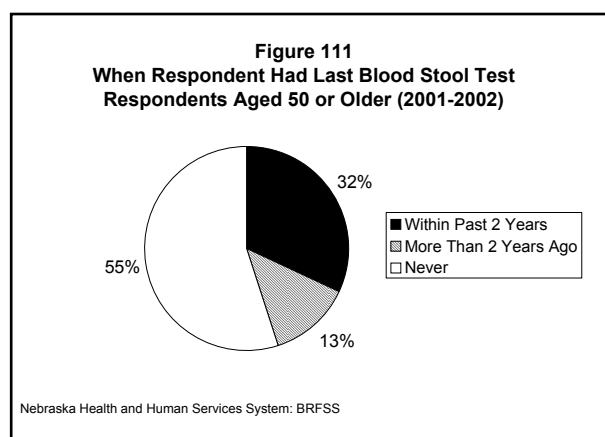
Prevalence of this testing was significantly higher among urban Nebraskans (46 percent) than among residents of rural counties (37 percent).

No significant differences were found by race or ethnic origin of respondents.

### **Nebraska and the Nation**

In 2001-2002, Nebraska (40 percent) ranked far below the national median (47 percent) in proportion of adults aged 50 and older who ever had a sigmoidoscopy or colonoscopy exam (Figure 113). The Nebraska rate was also lower than rates for each of the six surrounding states, where prevalence of testing ranged from 44 percent for South Dakota, Missouri and Wyoming to 48 percent for Colorado.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2002	US BRFSS 2001-2002	US 2010 Target
Percent of adults aged 50+ who ever had sigmoidoscopy or colonoscopy	50%	40%	47%	50%





<b>TABLE 36</b> <b>Colorectal Cancer Screening</b> <b>Nebraska Adults Aged 50 and Older, 2001-2002</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Had a Home Blood Stool Test in Past Two Years				Ever Had a Sigmoidoscopy or Colonoscopy			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Adults Aged 50+</b>	3,572	1,140	32	30.5-34.0	3,607	1,460	40	38.4-42.1
<b>Gender:</b>								
Male	1,301	431	33	30.6-36.0	1,302	531	40	37.1-43.0
Female	2,271	709	32	29.4-33.8	2,305	929	40	38.2-42.7
<b>Age:</b>								
50-64	1,670	476	28	25.6-30.4	1,668	556	34	31.3-36.4
65 +	1,902	664	37	34.6-39.7	1,939	904	47	44.8-50.0
<b>Education:</b>								
<High School	432	121	27	21.9-31.2	440	161	34	29.3-39.2
High School	1,425	440	32	29.2-34.8	1,440	568	39	36.5-42.3
Some College	952	304	32	28.4-35.0	963	388	40	36.8-43.8
College Degree	753	273	37	32.8-40.7	755	341	45	41.2-49.3
<b>Income:</b>								
<\$15,000	358	110	30	24.6-35.3	360	137	36	30.5-41.8
\$15,000 - \$24,999	807	262	33	29.3-36.9	810	320	39	34.8-42.6
\$25,000 - \$49,999	1,011	327	33	29.7-36.4	1,019	393	39	35.4-42.3
\$50,000 - \$74,999	355	105	27	22.3-32.2	357	127	35	29.1-40.0
\$75,000 +	303	102	34	28.1-39.8	303	158	52	45.4-57.8
<b>Race:</b>								
White	3,417	1,099	32	30.6-34.2	3,454	1,405	41	38.8-42.5
African American	343	121	36	29.6-42.5	344	131	34	27.9-40.3
Asian American	23	#	#	#	23	#	#	#
Native American	37	#	#	#	38	#	#	#
Hispanic Origin	220	50	23	16.0-29.9	218	77	36	28.1-43.6
<b>Place of Residence:</b>								
Rural	2,216	650	29	27.2-31.5	2,243	831	37	34.3-38.9
Urban	1,356	490	37	34.0-39.8	1,364	629	46	43.0-49.1
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses. # - Data not reported due to N < 50.								

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# PROSTATE CANCER SCREENING

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Prostate cancer is the most commonly diagnosed form of cancer among males in the United States. It is estimated that more than 232,000 new cases of prostate cancer will be diagnosed in the U.S. in 2005. This disease is expected to result in 30,350 deaths nationwide in 2005.

The American Cancer Society estimates that there will be 1,380 new cases of prostate cancer diagnosed and 180 deaths due to this form of cancer in Nebraska in 2005.

There has been a lack of consensus about the usefulness of prostate cancer screening. Two methods are commonly used. The digital rectal exam (DRE) has been used for years as a screening test, but its ability to detect prostate cancer is limited. The prostate-specific antigen (PSA) test measures the level of PSA in the blood. The level of PSA can rise naturally as men age or if prostate abnormalities are present.

Currently, the American Cancer Society recommends that the PSA test and the digital rectal exam be offered annually, beginning at age 50, to men who have a life expectancy of at least 10 years. Men at high risk (African American men and men with a strong family history of prostate cancer at an early age) should begin testing at age 45. Information should be provided about the benefits and limitations of early detection and treatment of prostate cancer so that men can make an informed decision about testing.

## **Prostate-Specific Antigen (PSA) Testing**

### **Definition**

Ever had a PSA test: “Yes” to question, “A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?”

In 2001 and 2002, men aged 40 and older were asked questions about prostate cancer screening. However, since screening guidelines refer primarily to men aged 50 and older, data for this age group will generally be presented here.

### **Current Prevalence**

Overall, 71 percent of men aged 50 and older in the 2001-2002 Nebraska BRFSS reported ever having a PSA test (Table 37).

### **Who Has Ever Had the PSA Test?**

A significantly greater proportion of men aged 65 and older (78 percent) ever had this screening for prostate cancer, compared to men aged 50 to 64 years (66 percent).

Men with college degrees (78 percent) were significantly more likely to have ever had a PSA test than men who had not completed high school (64 percent).

About three-fourths of African American (75 percent) and white (72 percent) men reported ever having a PSA test. White men were significantly more likely than Hispanic American men (52 percent) to indicate they ever had this screening performed.

## **Last PSA Test**

### **Current Prevalence**

One-half of all male respondents aged 50 and older (50 percent) reported having a PSA test in the last 12 months (Figure 114). Ten percent had this test one to two years ago, while it had been more than two years ago for another 10 percent. Nearly three of every ten men in this age group (29 percent) stated they had never had a PSA test to screen for possible prostate cancer.

## **Digital Rectal Examinations (DREs)**

### **Definition**

Ever Had a Digital Rectal Exam: “Yes” to question, “A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?”

Questions about digital rectal exams were asked of men aged 40 and older in the 2001 and 2002 Nebraska BRFSS.

### **Current Prevalence**

Seventy percent of men aged 50 and older in the 2001-2002 BRFSS reported ever having a digital rectal examination (Table 37).

### **Who Has Ever Had a DRE?**

More than three-fourths (77 percent) of men aged 65 and older indicated they ever had this exam, compared to 64 percent of men aged 50 to 64 (a statistically significant difference).

Seventy percent of white males aged 50 and older stated they ever had a DRE, as did 75 percent of African American men in this age bracket. Hispanic American men aged 50 and older were significantly less likely than either white or African American males to have ever had this screening (48 percent).

Men in urban counties (76 percent) were significantly more likely than those from rural counties (66 percent) to report ever having a digital rectal examination.

## **Last DRE**

### **Current Prevalence**

Fewer than one-half of all male respondents aged 50 and older (45 percent) said they had the exam within the past year (Figure 115). One-fourth (25 percent) said they had this exam, but it had been more than one year since their last test. Thirty percent of men in this age bracket indicated they had never had a digital rectal examination.

### **Who Had DRE in the Past Year?**

Men aged 65 and older (50 percent) were significantly more likely than men aged 50 to 64 (41 percent) to report having a DRE in the last 12 months.

African American (54 percent) and white men aged 50 and older (46 percent) were significantly more likely than Hispanic males in this age group (30 percent) to say they had this screening in the past year.

No significant trends in DRE rates were identified by education, household income, or place of residence of respondents.

### **Ever Told Have Prostate Cancer**

In 2001-2002, men aged 40 and older were asked, “Have you ever been told by a doctor, nurse, or other health professional that you had prostate cancer?” Three percent of respondents stated they did have prostate cancer.

Prevalence of diagnosed prostate cancer was significantly higher among men aged 65 and older (10 percent) than among men aged 50 to 64 (1 percent). No cases of prostate cancer were reported by the sample of men aged 40 to 44 in this study.

### **Family History of Prostate Cancer**

Men aged 40 and older who participated in the 2001 Nebraska BRFSS were also asked, “Has your father, brother, son, or grandfather ever been told by a doctor, nurse, or health professional that he had prostate cancer?” Thirteen percent of these respondents indicated that one or more of these family members had prostate cancer.

Urban men (16 percent) were significantly more likely than men from rural counties (8 percent) to say they had a family member that had prostate cancer.

No other significant differences were found in proportions of men with family history of this cancer.

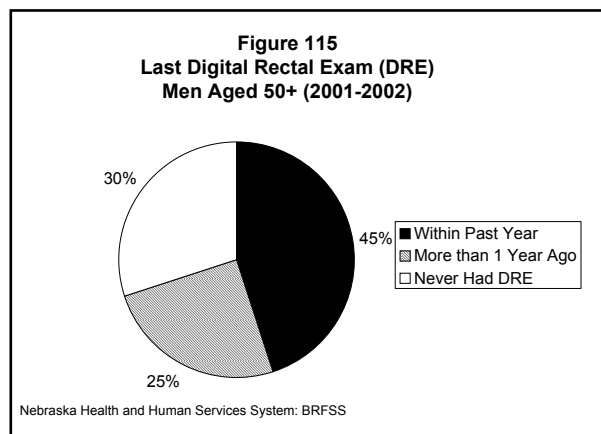
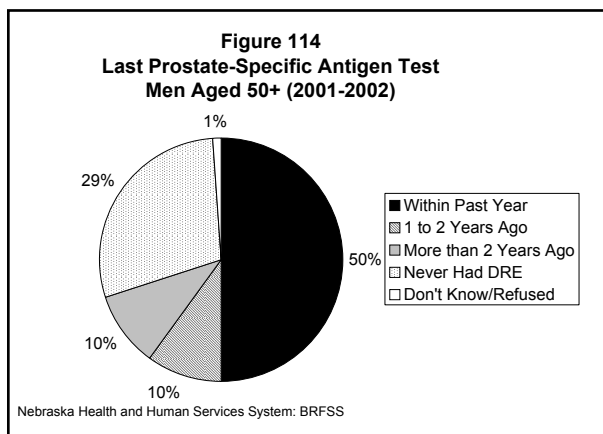
### **Screening Rates by Family History**

Prostate cancer screening rates for men with a family history of this disease were compared with rates for men who did not have a father, brother, son, or grandfather with prostate cancer. Men with a family history of this cancer were not significantly more likely than were those without a family history of this disease to be screened for prostate cancer (Table 38).

**TABLE 37**  
**Men's Health--Prostate Cancer Screening**  
**Nebraska Men 50 and Older, 2001-2002**  
**(with 95% Confidence Intervals--SUDAAN)**

	Ever Had a PSA Blood Test				Ever Had a Digital Rectal Exam				Had a Digital Rectal Exam in Past Year			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Males Aged 50+</b>	1,286	929	71	68.5-74.0	1,297	929	70	67.0-72.7	1,295	597	45	42.0-48.0
<b>Age:</b>												
50-64	646	429	66	62.3-70.3	657	434	64	60.2-68.4	656	273	41	36.9-45.2
65 +	640	500	78	74.2-81.4	640	495	77	73.8-81.0	639	324	50	46.1-54.7
<b>Education:</b>												
<High School	166	105	64	55.6-71.8	165	112	66	57.5-74.0	164	63	37	29.0-45.4
High School	508	356	69	64.4-73.4	511	340	66	61.5-70.6	511	213	40	35.6-44.9
Some College	283	205	72	66.4-77.8	289	219	75	69.8-80.7	288	154	54	48.0-60.6
College Degree	325	259	78	72.0-83.0	328	255	73	67.3-79.0	328	165	48	42.0-54.2
<b>Income:</b>												
<\$15,000	97	60	66	55.3-75.8	97	65	64	52.9-75.2	96	39	39	27.6-49.7
\$15,000 - \$24,999	281	203	72	66.4-78.4	278	197	70	64.1-76.6	278	114	40	33.9-46.9
\$25,000 - \$49,999	406	295	70	64.8-74.8	408	293	70	65.2-75.1	408	194	47	41.3-52.0
\$50,000 - \$74,999	164	121	76	68.4-82.6	169	116	66	58.1-74.3	169	76	44	35.8-52.1
\$75,000 +	163	132	79	72.2-86.5	167	136	79	71.8-86.2	167	94	54	45.7-62.4
<b>Race:</b>												
White	1,217	888	72	69.2-74.8	1,229	884	70	67.5-73.3	1,227	574	46	42.6-48.8
African American	114	91	75	64.6-85.1	117	88	75	65.5-84.2	117	62	54	42.8-64.6
Asian American	5	#	#	#	5	#	#	#	5	#	#	#
Native American	15	#	#	#	14	#	#	#	14	#	#	#
Hispanic Origin	74	41	52	38.8-65.7	73	39	48	34.6-61.5	71	23	30	17.8-41.7
<b>Place of Residence:</b>												
Rural	787	561	71	67.0-74.0	789	537	66	62.3-69.7	788	350	43	39.0-46.6
Urban	499	368	73	68.0-77.1	508	392	76	71.5-80.2	507	247	48	43.6-53.3

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.  
# - Data not reported due to N < 50.



<b>TABLE 38</b> <b>Prostate Cancer Screening Rates by Family History</b> <b>Men Aged 40 and Older, 2001</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>				
Type of Prostate Cancer Screening	% Receiving Screening			
	Family History of Prostate Cancer	Confidence Interval	No Family History of Prostate Cancer	Confidence Interval
Prostate-Specific Antigen (PSA) Test	15	11.6-19.0	11	7.5-14.6
Digital Rectal Examination (DRE)	13	9.6-15.8	15	10.4-19.3

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# WOMEN'S HEALTH

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## **BREAST CANCER**

Breast cancer is the most frequently diagnosed cancer among women in the United States and in Nebraska. Breast cancer ranks second only to lung cancer as a cause of cancer deaths among women. In Nebraska, this disease caused the deaths of 244 women in 2003.

According to the American Cancer Society, mammography is very valuable as an early detection tool because it can identify breast cancer at an early stage, usually before physical symptoms develop. Studies have shown that early detection saves lives and increases treatment options.

The American Cancer Society recommends yearly mammograms starting at age 40. Clinical breast examinations should also be done annually for women aged 40 and older and about every three years for women in their twenties and thirties. All women should also perform monthly breast self-examinations.

## **EVER HAD A MAMMOGRAM**

### **Definition**

Ever had a mammogram: Women in the survey were read a statement describing a mammogram as “an x-ray of each breast to look for breast cancer.” They were then asked if they “ever had a mammogram.”

Women's health questions were asked in 2002, but not in 2001 or 2003.

### **Current Prevalence**

The majority of women aged 40 or older (87 percent) reported ever having a mammogram. However, 13 percent were at risk because they never had this recommended screening.

### **Trend over Time**

The proportion of Nebraska women aged 40 and older who ever had a mammogram has more than doubled since 1987-1988 when only 40 percent said they ever had this screening performed (Figure 116).

## **HAD MAMMOGRAM IN THE PAST YEAR**

### **Current Prevalence**

In 2002, 60 percent of all female respondents aged 40 and older had a mammogram at some time within the past year (Figure 117). An additional 15 percent had this exam between one and two years ago. Thus, 75 percent of women in the target age group had received a mammogram within the past two years. Seven percent reported having this screening between two and five years ago, while it had been five years or longer for four percent of respondents. Thirteen percent had never had a mammogram.

### **Trend over Time**

The proportion of women in this age group who have had a mammogram in the last 12 months has increased considerably over the last ten years (Figure 118). In 1993, only 44 percent of women aged 40 and over reported having screening within this time frame. By 2002, the proportion had increased to 60 percent.

A similar increase occurred in proportion of women aged 40 and older who had a mammogram in the last two years. In 1989, 43 percent had this exam in the past two years. By 2002, the proportion had increased to 75 percent.

### Who Has Received Screening?

Although women aged 40 to 64 (61 percent) were a little more likely than women aged 65 and older (57 percent) to have a mammogram in the past 12 months, the difference in rates was not significant (Table 39).

Women with college degrees (65 percent) and those with some college or technical training (63 percent) were significantly more likely than women with less than a high school education (48 percent) to have had this screening in the past year. Among high school graduates, 56 percent reported having a mammogram within this time period.

Screening rates for respondents with household incomes of \$50,000 or more per year were higher than rates for women with lower incomes.

The proportion of respondents aged 40 and older who indicated they had a mammogram within the last 12 months was significantly higher for African American women (68 percent) than for Hispanic American women (47 percent). Among white women in Nebraska, 60 percent had this screening within the recommended time interval (Figure 119).

Women living in urban counties (65 percent) were significantly more likely than those living in rural counties (56 percent) to state they had a mammogram in the last year.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2002	US BRFSS 2002	US 2010 Target
Percent of women aged 40+ who had a mammogram in the past two years	75%	75%	NA	70%

## CLINICAL BREAST EXAMS

### Definition

Women in this survey were read the following description of a clinical breast exam: “A clinical breast exam is when a doctor, nurse or other health professional feels the breast for lumps.” They were then asked if they ever had a clinical breast exam.

### Current Prevalence

Overall, nine out of ten women aged 18 and older in the 2002 Nebraska BRFSS (90 percent) said they had at some time had a clinical breast examination (CBE).

Two-thirds of female respondents aged 40 or older (67 percent) reported having a CBE in the last 12 months, as recommended by the American Cancer Society (Figure 120). An additional 13 percent had this exam from one to two years ago, while 8 percent indicated it had been two to five years since their last CBE. Four percent said it had been five years or more since they had this exam.

### Trend over Time

The proportion of women aged 40 and over who stated they had a CBE in the past year increased somewhat since 1999 but remains below 70 percent (Figure 121).



## **Who's Received Screening?**

The proportion of women aged 40 to 64 who had their last CBE within the past 12 months (72 percent) is significantly higher than the proportion of women aged 65 and older (58 percent) (Table 39).

Women with some college/technical school (71 percent) or college degrees (74 percent) were significantly more likely than women with high school diplomas (62 percent) or less than a high school education (57 percent) to have a CBE in the past year.

Three-fourths of African American women aged 40 and older (76 percent) reported having this exam within the last 12 months, as did 67 percent of white women in this age group (Figure 122). Rates for both African American and white women were significantly higher than the rate for Hispanic American women in Nebraska (50 percent).

Urban women (72 percent) were significantly more likely than rural women (64 percent) to report having a CBE during the 12 months preceding the survey.

## **Nebraska and the Nation**

In 2002, the proportion of Nebraska women aged 18 years and older who ever had a clinical breast exam (90 percent) ranked just below the national median of 91 percent (Figure 123). CBE rates in the six surrounding states ranged from 91 percent for Kansas, South Dakota, Missouri, and Wyoming to 93 percent for Colorado and Iowa.

## **CERVICAL CANCER**

Pap tests are used to detect cervical cancer in women. Early cervical pre-cancers or cancer often have no signs or symptoms, so it is important for women to have regular Pap tests. The American Cancer Society recommends that women who are, or have been, sexually active or who have reached 21 years of age should have a Pap test performed annually, along with a pelvic exam. At or after age 30 and after three or more consecutive annual exams with normal results, the Pap test may be performed less frequently at the discretion of the physician.

## **EVER HAD A PAP TEST**

### **Definition**

Female respondents were read this description of a Pap smear: "A Pap smear is a test for cancer of the cervix." They were then asked if they "ever had a Pap smear."

Questions about Pap tests were asked in 2002, but not 2001 or 2003.

### **Current Prevalence**

Among women aged 18 and older (both those with and those without a uterine cervix), 94 percent reported having a Pap smear at some time in their lives.

### **Trend over Time**

The proportion of women who ever had a Pap test has varied little over the last ten years (Figure 124), ranging from 92 to 95 percent.

## **HAD A PAP TEST IN THE PAST THREE YEARS**

### **Current Prevalence**

The majority of women participating in the 2002 BRFSS (82 percent) reported that they had this test performed within the past three years (Table 40).

## Trend over Time

The proportion of women who had a Pap smear in the past three years remained at 78 to 79 percent from 1994 to 1998 (Figure 125). Since then, prevalence has surpassed 80 percent each year.

## Who Has Received Screening?

The proportion of women aged 18 and older who reported having a Pap smear in the past three years generally decreased with advancing age of respondent, except for women in the youngest age group (86 percent) (Figure 126). The screening rate was highest for women aged 30 to 44 (92 percent). This rate was significantly higher than rates for women aged 45 to 64 (85 percent) and those 65 and older (62 percent). Women aged 65 and older were significantly less likely than women in each of the younger age brackets to have had a Pap smear in the last three years (Table 40).

The screening rate for college graduates (89 percent) was significantly higher than rates for women at each of the lower educational levels. Women with some college (84 percent) were also significantly more likely than were those who had not completed high school (71 percent) to say they had a Pap test in the past three years.

The proportion of women in the upper income brackets (\$50,000 and above) who had this screening within the last three years (90 to 93 percent) was significantly greater than the proportion reported for women with household incomes of less than \$25,000 per year (78 to 79 percent).

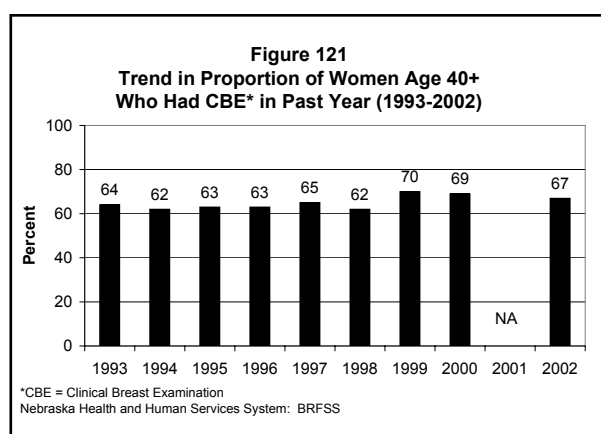
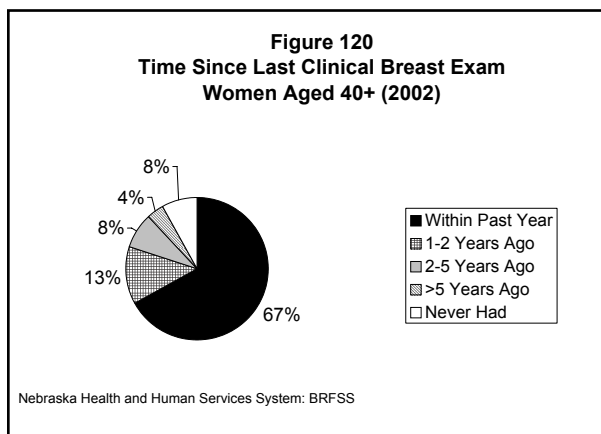
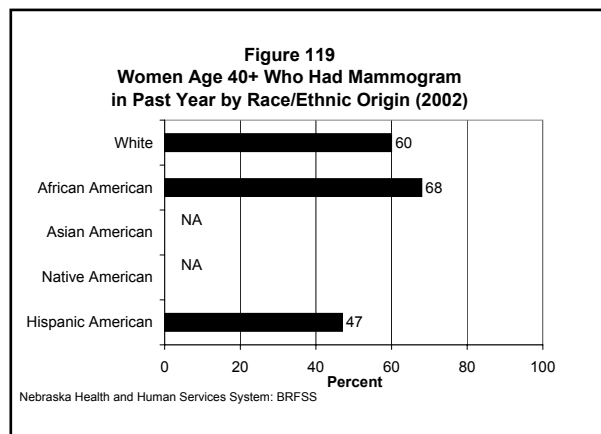
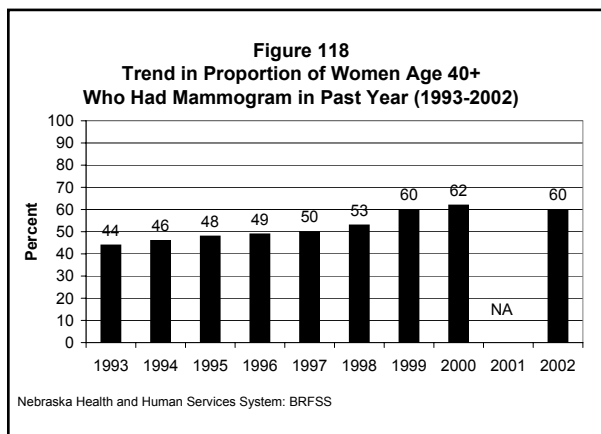
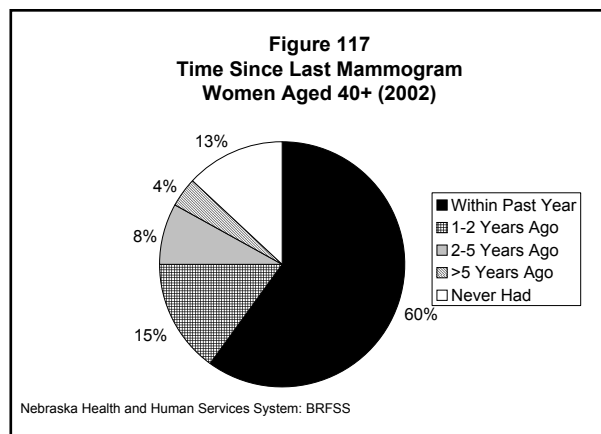
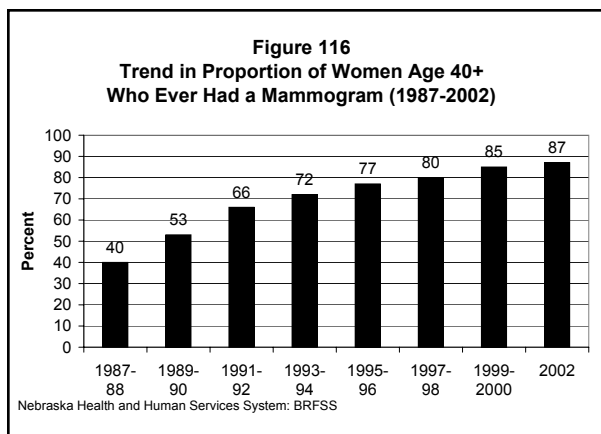
A significantly greater proportion of African American women (89 percent) had Pap tests in the last three years, compared to white women (83 percent). Eighty percent of Hispanic American women indicated they had received this screening during the three years preceding the survey.

Women living in urban counties (86 percent) were significantly more likely than those living in rural areas (80 percent) to have had a Pap smear in the past three years.

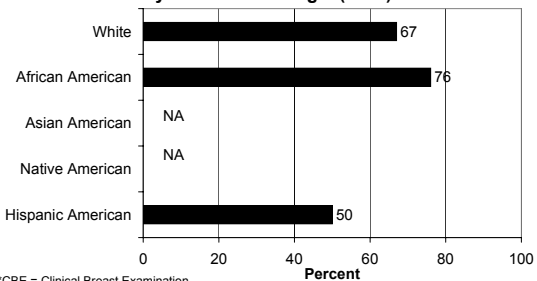
## Nebraska and the Nation

The proportion of women aged 18 and older who ever had a Pap smear was slightly lower in Nebraska (94 percent) than the 2002 national median of 95 percent (Figure 127). Of the six surrounding states, none reported a lower rate. Only the rates for Kansas and Missouri were as low as Nebraska's. Iowa reported the highest screening prevalence (97 percent).

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2002	US BRFSS 2002	US 2010 Target
Percent of women aged 18+ who ever had a Pap test	98%	94%	95%	97%
Percent of women aged 18+ who had a Pap test in the past three years	90%	82%	NA	90%

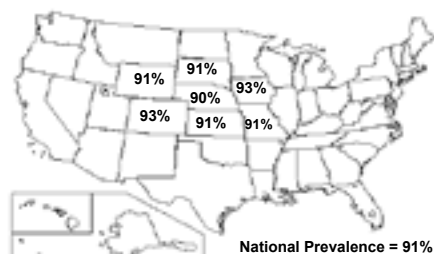


**Figure 122**  
**Women Age 40+ Who Had CBE\* in Past Year**  
**by Race/Ethnic Origin (2002)**



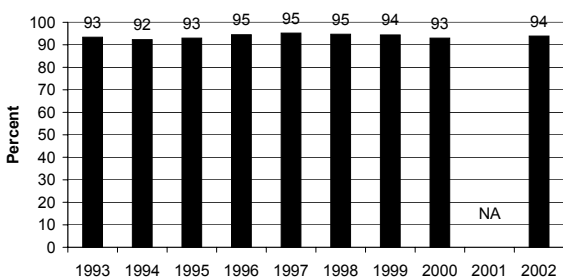
\*CBE = Clinical Breast Examination  
 Nebraska Health and Human Services System: BRFSS

**Figure 123**  
**Ever Had Clinical Breast Exam**  
**Women Aged 18+ (2002)**



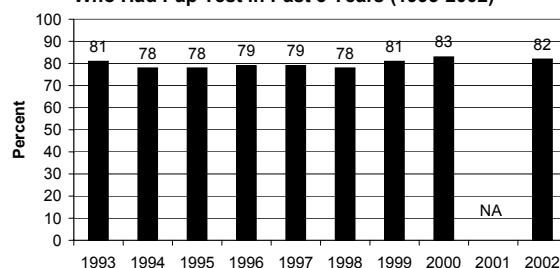
Nebraska Health and Human Services System: BRFSS

**Figure 124**  
**Trend in Proportion of Women Age 18+**  
**Who Ever Had Pap Test (1993-2002)**



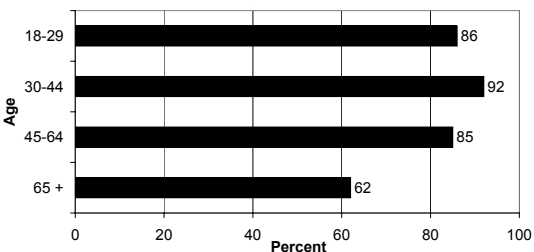
Nebraska Health and Human Services System: BRFSS

**Figure 125**  
**Trend in Proportion of Women Age 18+**  
**Who Had Pap Test in Past 3 Years (1993-2002)**



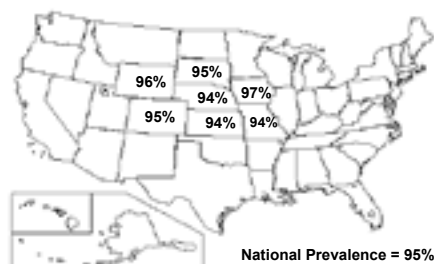
Nebraska Health and Human Services System: BRFSS

**Figure 126**  
**Proportion of Women Who Had Pap Test**  
**in Past 3 Years by Age of Respondent (2002)**



Nebraska Health and Human Services System: BRFSS

**Figure 127**  
**Ever Had Pap Test**  
**Women Aged 18+ (2002)**



Nebraska Health and Human Services System: BRFSS

<b>TABLE 39</b> <b>Women's Health--Breast Cancer Screening</b> <b>Nebraska Women 40 and Older, 2002</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Had a Mammogram in Past Year				Had Clinical Breast Exam in Past Year			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Females Aged 40+</b>	1,826	1,076	60	57.0-62.1	1,823	1,206	67	64.6-69.5
<b>Age:</b>								
40-64	1,092	669	61	57.8-64.4	1,087	784	72	68.5-74.6
65 +	734	407	57	52.5-60.4	736	422	58	54.3-62.2
<b>Education:</b>								
<High School	153	78	48	38.2-57.6	153	88	57	47.6-66.5
High School	690	385	56	52.1-60.5	693	422	62	57.6-65.9
Some College	536	327	63	58.0-67.1	535	374	71	67.1-75.5
College Degree	445	285	65	60.0-69.8	440	321	74	69.4-78.5
<b>Income:</b>								
<\$15,000	170	93	54	44.8-63.6	165	102	64	54.9-72.2
\$15,000 - \$24,999	409	218	53	46.8-58.5	410	238	57	51.7-63.2
\$25,000 - \$49,999	486	275	57	51.6-61.4	482	323	68	63.7-72.8
\$50,000 - \$74,999	224	156	71	64.6-77.4	224	172	76	70.2-82.3
\$75,000 +	180	124	68	60.7-75.5	180	143	77	70.2-83.8
<b>Race:</b>								
White	1,734	1,022	60	56.9-62.2	1,731	1,143	67	64.6-69.5
African American	218	143	68	60.6-75.8	217	161	76	69.5-83.3
Asian American	18	#	#	#	18	#	#	#
Native American	20	#	#	#	20	#	#	#
Hispanic Origin	123	58	47	35.8-57.3	123	65	50	39.1-60.7
<b>Place of Residence:</b>								
Rural	1,117	623	56	52.6-59.2	1,112	696	64	60.4-66.8
Urban	709	453	65	61.0-69.0	711	510	72	68.6-75.9
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses. # - Data not reported due to N < 50.								

<b>TABLE 40</b> <b>Women's Health--Pap Test</b> <b>Nebraska Women Aged 18 and Older, 2002</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Ever Had a Pap Test				Had a Pap Test in Past 3 Years			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Adult Females</b>	2,701	2,559	94	92.6-95.2	2,669	2,161	82	80.8-84.2
<b>Age:</b>								
18-29	366	331	86	81.4-91.2	365	327	86	80.5-90.5
30-44	763	744	98	96.3-98.7	761	703	92	89.7-94.3
45-64	807	756	98	95.8-98.8	802	676	85	82.5-87.8
65 +	745	682	91	89.1-93.8	722	441	62	58.4-66.2
<b>Education:</b>								
<High School	196	174	87	81.4-93.1	192	128	71	63.7-78.4
High School	916	858	93	89.9-95.2	903	691	79	75.4-82.0
Some College	853	816	95	92.9-96.8	841	693	84	80.9-86.7
College Degree	733	710	97	95.1-98.3	730	649	89	86.8-92.0
<b>Income:</b>								
<\$15,000	249	228	92	87.5-95.9	245	176	78	72.6-84.2
\$15,000 - \$24,999	564	536	95	93.4-97.4	556	426	79	75.4-83.0
\$25,000 - \$49,999	775	745	95	93.4-97.3	769	645	85	81.7-87.5
\$50,000 - \$74,999	366	359	98	95.6-99.7	365	332	90	86.0-93.7
\$75,000 +	285	282	98	95.9-100.3	285	269	93	90.1-86.8
<b>Race:</b>								
White	2,497	2,372	95	93.5-95.7	2,465	1,987	83	80.8-84.2
African American	353	332	94	91.2-97.2	349	306	89	84.5-92.6
Asian American	44	#	#	#	43	#	#	#
Native American	37	#	#	#	37	#	#	#
Hispanic Origin	367	327	87	82.6-91.5	362	292	80	75.1-85.3
<b>Place of Residence:</b>								
Rural	1,534	1,442	93	91.6-94.9	1,512	1,176	80	77.2-81.9
Urban	1,167	1,117	95	92.8-96.7	1,157	985	86	83.5-88.5
NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses. # - Data not reported due to N < 50.								

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# FAMILY PLANNING

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Unplanned pregnancy rates in the United States have declined in recent years. Still, about one-half or all pregnancies nationwide are currently unintended. (Unintended pregnancies are those not wanted at the time of conception or not wanted at all).

Consequences of an unintended pregnancy can be serious and costly. Socially, the costs can be measured in unintended births, reduced educational attainment and employment opportunity, greater welfare dependency, and increased potential for child abuse and neglect. Medically, an unintended pregnancy is serious in terms of a lost opportunity to prepare for a healthy pregnancy, an increased chance of infant and maternal illness, and the possibility of abortion.

With an unintended pregnancy, a mother is less likely to seek prenatal care in the first three months of pregnancy and is more likely not to obtain prenatal care at all. She is also less likely to breastfeed and more likely to expose the unborn child to harmful substances by smoking or consuming alcohol.

For teenagers who have an unintended pregnancy, the problems are well-documented. Teenaged mothers are less likely to get or stay married and less likely to complete high school or college. They are also more likely to require public assistance and to live in poverty than their peers who are not mothers. The infants born to teen mothers, especially to those under age 15 years, are more likely to have low birth weight and are at greater risk of neonatal death and sudden infant death syndrome (SIDS). These babies may also be at greater risk of child abuse and neglect, as well as educational and behavioral problems later on in life.

Family planning services provide opportunities for individuals to receive medical advice in controlling if and when pregnancy occurs and for health care providers to offer health education and related medical care.

## **BIRTH CONTROL USE AND METHODS**

In the 2002 Nebraska BRFSS, women aged 18 to 44 who were not currently pregnant and men aged 18 to 59 were asked whether or not they or their partner were using birth control.

### **Definitions**

Using birth control: “Yes” to the question, “Are you or your [spouse]/partner doing anything now to keep you (or her) from getting pregnant? Some things people do to keep from getting pregnant include not having sex at certain times, using birth control methods such as the pill, Norplant, shots or Depo-provera, condoms, diaphragm, foam, IUD, having their tubes tied, or having a vasectomy.”

Birth control method used: Responses to the question, “What are you or your [spouse]/partner doing now to keep you (or her) from getting pregnant?”

Reason for not using birth control: Responses to the question, “What is your main reason for not doing anything to keep you/your partner from getting pregnant?”

### **Use of Birth Control**

Altogether, 57 percent of respondents who were asked questions about birth control (i.e., women aged 18 to 44 who were not pregnant and men aged 18 to 59) said they were currently using a form of birth control.

Nearly one-third (31 percent) were not at risk for unintended pregnancy for various reasons (Table 41). Nine percent were not using birth control and were at risk for unintended pregnancy. The remaining three percent did not know how to respond to these questions or refused to answer.

Among respondents who were not at risk for unintended pregnancy, the majority were not at risk because they stated they currently do not have a “partner” or are not sexually active (22 percent of all

respondents). Four percent of all respondents to birth control questions said they wanted to achieve pregnancy. Three percent were not at risk because they or their partner had a hysterectomy, while two percent said their partner was currently pregnant. Less than one percent were not at risk for unintended pregnancy because they had a same-sex partner.

### **Birth Control Method Used**

Among respondents who indicated they or their partner were currently using birth control, 37 percent reported using a permanent method. Twenty percent of female partners said they had their “tubes tied” and 17 percent of male partners stated they had a vasectomy (Figure 128). “The pill” (an oral contraceptive) was the method of choice for a similar proportion of couples (36 percent). Fifteen percent relied on condoms to prevent pregnancy.

Respondents were also asked, “What other method are you also using to prevent pregnancy?” The majority (81 percent) said they weren’t using another method (Table 42). However, 10 percent mentioned condoms and five percent mentioned the pill as secondary methods for pregnancy prevention. If these results are added in, the pill becomes the most frequently mentioned means of birth control (41 percent of respondents) and condom use was mentioned by 25 percent of respondents.

### **Who Is Using These Birth Control Methods?**

The “Pill”. Looking only at the first-mentioned method of birth control, young adults aged 18 to 29 were significantly more likely to say they use the pill (57 percent), compared to only 28 percent of respondents aged 30 to 44 (Table 43). Among men aged 45 to 59, only 14 percent reported that their partner uses this method.

White respondents (37 percent) were significantly more likely to use oral contraceptives (the pill) than African American (17 percent) or Hispanic American (22 percent) respondents.

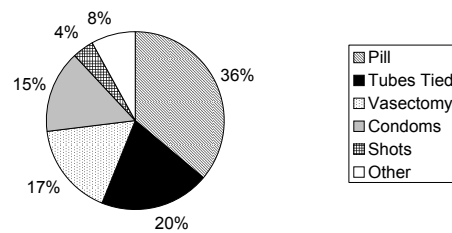
Sterilization. As might be expected, use of sterilization (tubes tied for females and vasectomy for males) was significantly more common among older respondents. More than one-third of males aged 45 to 49 (36 percent) said their partners had their tubes tied and one-fourth (25 percent) of respondents aged 30 to 44 said they (or their female partner) used this means of birth control. In contrast, only five percent of 18- to 29-year-olds reported using this method. A similar pattern is evident for respondents indicating they or their partner had a vasectomy.

Condoms. Overall, 15 percent of respondents to the question about birth control method used mentioned condoms as their method of choice. Young adults aged 18 to 29 (22 percent) were significantly more likely than respondents aged 30 to 44 (11 percent) or males aged 45 to 59 (7 percent) to use condoms as their primary method of preventing pregnancy.

One-third of African American respondents (34 percent) reported that condoms were the birth control method they rely on. This proportion is significantly higher than the proportion of white Nebraskans (14 percent) who say condoms are their first choice among birth control methods. Among Hispanic Americans, 23 percent mentioned condoms as their primary method.



**Figure 128**  
**Birth Control Method Currently Using**  
**(Non-Pregnant Women Age 18-44 and Men 18-59)**  
**2002**



Nebraska Health and Human Services System: BRFSS

**TABLE 41**  
**Use of Birth Control by Respondents or Partners**  
**(Non-Pregnant Women Age 18-44 and Men Age 18-59)**  
**2002**

	Weighted Percent
<b>Using Birth Control</b>	57%
<b>Not at Risk for Unintended Pregnancy</b>	31%
Not Sexually Active/No Partner	22
Want a Pregnancy	4
Had hysterectomy	3
Partner Is Pregnant Now	2
Same Sex Partner	<1
<b>Do Not Use Birth Control and At Risk for Unintended Pregnancy</b>	9%
<b>Don't Know/Refused to Answer</b>	3%
<b>TOTAL</b>	100%

**TABLE 42**  
**Type of Birth Control Currently Used (by Those Using Birth Control)**  
**Non-Pregnant Women Aged 18-44 and Men Aged 18-59**  
**2002**

	First Method Weighted Percent	Second Method Weighted Percent	Total Mentions Weighted Percent
Pill	36	5	41
Tubes tied	20	0	20
Vasectomy	17	0	17
Condoms	15	10	25
Shots	4	0	4
Rhythm	1	0	1
Other (including foam, diaphragm, Norplant, IUD, withdrawal, and all other)	6	3	10
Not sexually active	1	0	2
Sub-Total	100	19	119
No other method		81	
Total		100	

**TABLE 43**  
**Family Planning--Type of Birth Control Used (First Mentioned)**  
**Nebraska Adults, 2002**  
**(with 95% Confidence Intervals--SUDAAN)**

	Type of Birth Control Used--Pill				Type of Birth Control Used--Tubes Tied				Type of Birth Control Used--Vasectomy				Type of Birth Control Used--Condoms			
	Total Number	Number	Percent	Confidence Interval	Number	Percent	Confidence Interval	Number	Percent	Confidence Interval	Number	Percent	Confidence Interval			
Total Adults	1,069	367	36	32.4-39.7	222	20	16.9-22.3	206	17	14.7-19.4	142	15	11.3-17.9			
Gender:																
Male	460	141	33	27.8-38.0	86	18	41.2-22.0	105	20	15.8-23.2	66	16	11.0-21.6			
Female	609	226	40	35.0-44.6	136	21	17.7-25.2	101	14	11.3-16.9	76	13	9.6-15.6			
Age:																
18-29	300	164	57	49.2-64.8	19	5	2.3-6.8	11	3	1.1-4.5	60	22	14.4-29.9			
30-44	622	185	28	23.8-31.8	156	25	21.4-29.3	139	22	18.2-25.1	71	11	8.6-14.3			
45-59 (Males Only)	147	18	14	7.0-20.7	47	36	27.4-45.0	56	35	27.0-43.7	11	7	2.8-12.1			
Education:																
<High School	52	8	11	3.1-18.2	20	39	23.8-54.2	4	6	-0.4-11.7	13	30	14.9-44.6			
High School	280	84	35	28.3-42.5	83	28	21.6-33.5	47	15	10.3-18.7	27	8	4.6-10.8			
Some College	366	130	37	30.5-44.2	69	16	11.4-19.5	74	18	13.4-21.9	45	17	9.5-24.8			
College Degree	371	145	40	34.4-46.0	50	13	9.5-17.2	81	21	16.3-25.4	57	15	10.8-18.8			
Income:																
<\$15,000	55	22	57	40.4-73.5	13	14	5.3-22.6	3	4	-0.7-8.5	9	15	3.5-27.0			
\$15,000 - \$24,999	161	52	35	24.3-46.4	41	21	13.3-29.0	13	6	2.3-9.0	25	23	9.0-37.3			
\$25,000 - \$49,999	378	129	35	28.9-40.6	78	19	14.8-23.5	73	17	13.4-21.4	55	15	11.0-19.5			
\$50,000 - \$74,999	213	76	35	27.5-41.6	42	20	14.2-26.1	49	22	16.1-28.4	23	10	5.8-14.5			
\$75,000 +	183	59	32	24.6-40.1	28	18	10.8-24.3	58	29	22.2-36.2	20	11	5.8-16.0			
Race:																
White	975	345	37	33.0-40.7	190	18	15.6-21.1	202	19	15.9-21.1	122	14	10.0-16.9			
African American	131	28	17	10.2-24.6	41	30	20.4-39.9	5	4	0.2-7.6	35	34	23.1-44.9			
Asian American	21	#	#	#	#	#	#	#	#	#	#	#	#			
Native American	18	#	#	#	#	#	#	#	#	#	#	#	#			
Hispanic Origin	205	52	22	15.5-28.8	51	26	18.2-32.8	6	3	-0.2-5.8	38	23	15.2-30.0			
Place of Residence:																
Rural	541	170	32	27.6-37.0	130	23	19.4-27.5	118	20	16.7-24.0	62	12	8.8-15.4			
Urban	528	197	39	34.0-44.9	92	16	12.4-19.7	88	14	11.0-17.1	80	17	11.6-22.4			

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

# - Data not reported due to N < 50.

# HIV/AIDS

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AIDS (acquired immunodeficiency syndrome) is a chronic, life-threatening condition caused by the human immunodeficiency virus (HIV). By damaging or destroying the cells of a person's immune system, HIV interferes with the body's ability to effectively fight off bacteria, viruses, and fungi that cause disease. This makes the person more susceptible to opportunistic infections that the body would normally be able to resist.

Since 1981, approximately 1.5 million people in the United States have been infected with HIV, including more than 500,000 who have died from HIV/AIDS as of 2003. Although the number of new cases is down from its high of more than 150,000 per year in the 1980's, approximately 40,000 new HIV infections still occur each year in this country.

In Nebraska, a cumulative total of 1,822 cases of HIV or AIDS have been reported through the end of 2002. About four of every ten persons in the state who were diagnosed with AIDS or HIV since 1983 have died (39 percent).

HIV testing is important for both prevention and treatment of the disease. However, according to the Kaiser Family Foundation's 2004 "HIV/AIDS Policy Fact Sheet", about one-fourth of those infected with HIV do not know it.

The number of persons living with HIV/AIDS has increased as powerful new combination drug therapies were developed and deaths from the disease declined. These new treatments are not a cure, however, and do not benefit all people with HIV. Thus, controlling the HIV/AIDS epidemic will continue to require sustained prevention efforts, particularly among population groups at highest risk for infection.

## **KNOWLEDGE OF HIV/AIDS**

### **Definitions**

BRFSS respondents aged 18 to 64 were asked two questions about their knowledge of "HIV, the virus that causes AIDS".

Correct response = "True" to statement, "A pregnant woman with HIV can get treatment to help reduce the chances that she will pass the virus on to her baby."

Correct response = "True" to statement, "There are medical treatments available that are intended to help a person who is infected with HIV to live longer."

### **Prevalence of Correct Responses**

#### **Transmission of HIV from Pregnant Woman to Baby**

Little more than one-half of respondents aged 18 to 64 (53 percent) agreed that pregnant women with HIV can get treatment that will help reduce the chances that she will pass the virus on to her baby (Figure 129). Thirty percent of adults in this age group said they didn't know if this is true, while 15 percent said this statement is false.

A significantly greater proportion of women (56 percent) were aware that such treatment is available, compared to men (49 percent) (Table 44).

Younger adults were significantly more likely than older persons to correctly state that this treatment is available to prevent transmission of HIV to infants. Sixty percent of 18- to 29-year-olds were aware of this treatment, compared to 52 percent of 30- to 44-year-olds and 47 percent of those aged 45 to 64.

The proportion of college graduates who agreed with this statement (59 percent) was significantly greater than the proportion reported for respondents with less education. Among respondents with

some college or technical training, 54 percent were aware that treatment is available for pregnant women that reduces the probability that they will pass HIV on to their babies. This group was also significantly more likely than high school graduates (48 percent) and respondents with less than a high school education (42 percent) to agree that this is true.

Urban Nebraskans (58 percent) were significantly more likely than rural residents (48 percent) to correctly state that such treatment is available.

Differences by household income of respondents and by race/ethnic origin of respondents were not significant.

### **Medical Treatment for HIV to Prolong Life**

Nearly nine of every ten BRFSS respondents aged 18 to 64 (88 percent) were aware that medical treatments are available to help persons with HIV to live longer. Ten percent said they didn't know or refused to answer the question. Only two percent indicated that no treatments are available.

The majority of respondents in each demographic and socioeconomic group correctly stated that this kind of medical treatment is available. However, persons with higher levels of education and persons with higher annual incomes were more likely than those at lower levels to agree with this statement.

White respondents (89 percent) were also more likely than African Americans (80 percent) or Hispanic Americans (74 percent) to be aware that medical treatments for HIV that may help to prolong life are available.

## **HIV TESTING**

### **Importance of HIV Testing**

#### **Definitions**

Importance of HIV testing: Responses to question, "How important do you think it is for people to know their HIV status by getting tested? Would you say: Very important? Somewhat important? Not at all important?"

#### **Current Prevalence**

The majority of respondents aged 18 to 64 (85 percent) said that it is "very important" that people learn their HIV status by getting tested (Figure 130). Six percent rated it "somewhat important", while four percent said it depends on your risk of contracting HIV. Less than one percent stated that learning your HIV status is not at all important. Four percent didn't know or refused to answer this question.

Women (88 percent) were significantly more likely than men (82 percent) to say being tested for HIV is very important.

The proportion of older adults aged 45 to 64 years who said that testing is very important (79 percent) was significantly lower, compared to the proportions for adults aged 30 to 44 (86 percent) and those aged 18 to 29 (89 percent).

Hispanic Nebraskans (88 percent) and African Americans (89 percent) were significantly more likely to give this response than white (85 percent) or Asian American (78 percent) respondents.

### **Ever Tested for HIV**

#### **Definition**

Ever Tested for HIV: "Yes" to the question, "Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation."

## **Current Prevalence**

Despite high scores on the importance of HIV testing (i.e., 85 percent said it is “very important”), slightly more than one-third (35 percent) of all respondents aged 18 to 64 years said they had ever been tested for HIV (Table 44).

## **Trend over Time**

The proportion of respondents who stated that they ever had their blood tested for HIV infection changed little since the 1995-1996 BRFSS, ranging from 32 percent to the current rate of 35 percent (Figure 131).

## **Who Has Been Tested?**

A significantly smaller proportion of men (33 percent) reported ever being tested, compared to women (36 percent) (Table 44).

Only about one-fifth of respondents aged 45 to 64 (20 percent) stated they had ever been tested for HIV infection. This proportion was significantly lower than that reported for 18- to 29-year-olds (39 percent) or 30- to 44-year-olds (40 percent).

White (33 percent) and Hispanic (36 percent) Nebraskans were significantly less likely to say they ever had an HIV test, compared to African American (59 percent) and Native American (49 percent) respondents. Asian Americans (40 percent) were also less likely to report being tested for HIV than African Americans.

Residents of rural Nebraska counties (29 percent) were significantly less likely than residents of urban counties (41 percent) to report ever being tested for this infection.

## **Last HIV Test**

Sixteen percent of 2001-2003 BRFSS respondents who ever had an HIV test reported having their last HIV test within the past year (Figure 132). The greatest proportion (55 percent) said they last had this test between one and five years ago.

Respondents aged 18 to 29 years (21 percent) were significantly more likely than respondents aged 30 to 44 (11 percent) to have an HIV test in the past year. Young adults (84 percent) were also much more likely to report having their last HIV test within the last five years, compared to adults aged 30 to 44 (64 percent) and adults aged 45 to 64 (63 percent).

African Americans (22 percent) were significantly more likely than white respondents (16 percent) to report having their last HIV test within the past 12 months. African Americans (82 percent), Hispanic Americans (83 percent), and Asian Americans (87 percent) were more likely than whites (69 percent) to indicate they last had an HIV test within the last five years.

## **Reasons for Testing**

Reasons for having their blood tested for HIV infection varied (Table 45), but nearly two-thirds of the respondents (65 percent) stated that the HIV blood test was done as a routine requirement of some kind. They frequently said it “was required” (25 percent), was “part of a routine medical check-up” (23 percent), or was part of a pregnancy exam (17 percent).

One-fourth of the respondents who had been tested (26 percent) cited reasons that may indicate that the respondent felt he or she was at increased risk for being infected with HIV. Most of them (22 percent of the total) said they “just wanted to find out whether [they] had HIV”. Two percent thought they “may have gotten HIV through sex or drug use”. An additional two percent had been tested because someone suggested it to them.

## Site of Most Recent HIV Test

When asked where they had their last HIV test, nearly one-half (49 percent) said a private doctor or HMO (Table 46) did the testing. Nineteen percent reported being tested for HIV at a clinic, while 16 percent cited a hospital as the testing site. Six percent stated they were tested at home and four percent at a counseling and testing site.

## Respondents at High Risk for HIV

### Definition

At High Risk: “Yes” to any of the risk behaviors described in the following question. “I’m going to read you a list. When I’m done, please tell me if any of the situations apply to you. You don’t need to tell me which one.

- You have used intravenous drugs in the past year.
- You have been treated for a sexually transmitted or venereal disease in the past year.
- You have given or received money or drugs in exchange for sex in the past year.
- You had anal sex without a condom in the past year.

Do any of these situations apply to you?”

### Current Prevalence

Based on the above definition, only three percent of 2002-2003 BRFSS respondents in the 18-to-64 age group would be consider “at high risk”. The great majority (95 percent) said none of these situations apply to them and they would therefore not be classified as “high risk.” Two percent said they didn’t know or refused to answer this question.

### Who’s at High Risk for HIV Infection?

Younger respondents (aged 18 to 29, five percent; aged 30 to 44, three percent) were more likely than respondents aged 45 to 64 (one percent) to say that any of the four high-risk situations described in the above question applied to them (Table 47).

African American (six percent) and Hispanic American (six percent) respondents were more likely than white respondents (three percent) to be at high risk for HIV infection, based on their responses to this question.

### Counseling about Sexually Transmitted Disease (STD) Prevention

BRFSS respondents aged 18 to 64 were also asked a question about “sexually transmitted diseases other than HIV, such as syphilis, gonorrhea, chlamydia, or genital herpes.” The question stated, “In the past 12 months has a doctor, nurse, or other health professional talked to you about preventing sexually transmitted diseases through condom use.” Only 10 percent reported that a health professional had discussed this topic with them in the last year (Table 47).

### Who Has Received Counseling?

Women (12 percent) were significantly more likely than men (7 percent) to say they had received counseling about condom use to prevent STDs in the past 12 months.

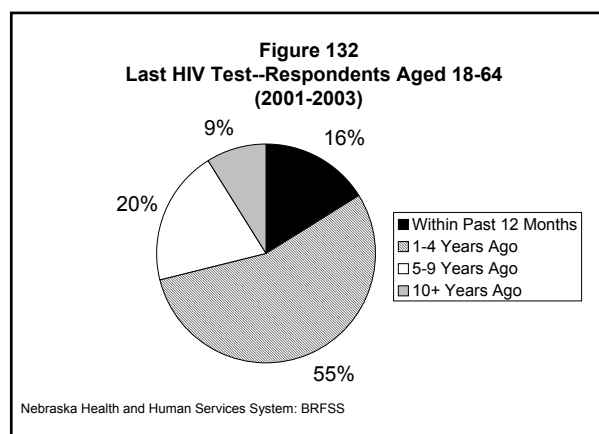
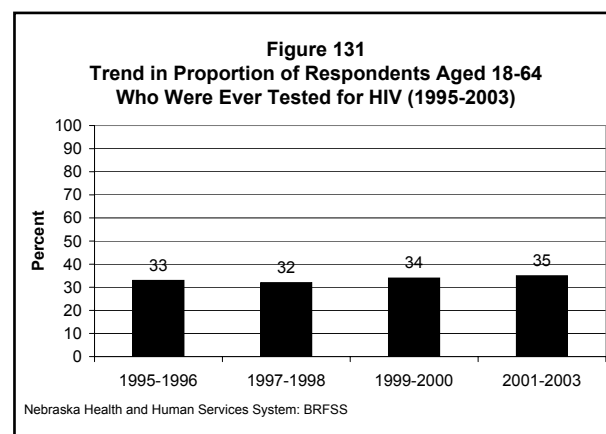
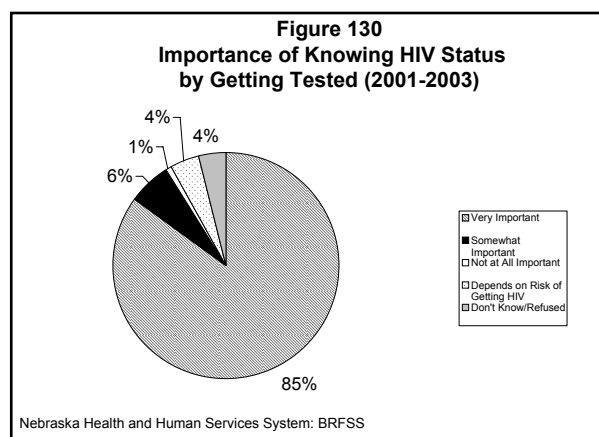
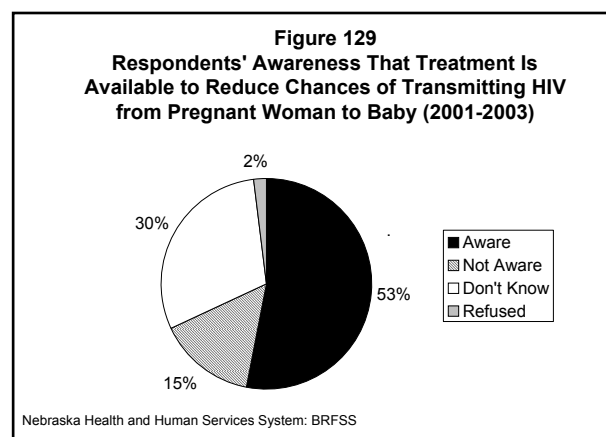
Nearly one-fourth of young adults aged 18 to 29 (24 percent) stated that a doctor or other health professional discussed this subject with them. This rate is significantly greater than the rates reported by 30- to 44-year-olds (seven percent) and 45- to 64-year-olds (two percent).

Persons with annual incomes under \$15,000 (23 percent) or \$15,000 to \$24,999 (16 percent) were significantly more likely than persons with incomes of \$25,000 or higher (4 to 8 percent) to receive

counseling about STD prevention through condom use.

Significantly greater proportions of Hispanic Americans (24 percent) and African Americans (20 percent) indicated they had discussed this method of preventing STD's with a health professional in the last year, compared to whites (8 percent), Asian Americans (11 percent), and Native Americans (14 percent).

Nebraskans living in urban counties (12 percent) were significantly more likely than those living in rural counties (8 percent) to have received this counseling from a health professional.



**TABLE 44**  
**HIV / AIDS**  
**Nebraska Adults Aged 18 - 64, 2001-2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	Agree that Treatment Available for Pregnant Women to Reduce Chances of Passing Virus on to Baby*				Very Important to Know HIV Status by Getting Tested*				Ever Tested for HIV (Except Blood Donation)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Adults Aged 18-64</b>	9,683	5,103	53	51.6-54.0	9,683	8,282	85	84.4-86.1	9,289	3,237	35	33.5-35.8
<b>Gender:</b>												
Male	3,891	1,877	49	47.4-51.1	3,891	3,189	82	81.0-83.8	3,715	1,225	33	31.1-34.7
Female	5,792	3,226	56	54.9-57.9	5,792	5,093	88	87.1-89.1	5,574	2,012	36	34.9-37.8
<b>Age:</b>												
18-29	1,992	1,208	60	57.6-62.9	1,992	1,802	89	87.2-90.8	1,924	816	39	36.8-42.1
30-44	4,847	2,536	52	50.0-53.3	4,847	4,202	86	85.0-87.2	4,654	1,875	40	38.1-41.4
45-64	2,844	1,359	47	44.6-48.8	2,844	2,278	79	77.8-81.2	2,711	546	20	18.0-21.5
<b>Education:</b>												
<High School	540	236	42	36.9-46.6	540	465	87	83.9-90.3	512	182	34	29.5-39.1
High School	2,980	1,393	48	46.0-50.4	2,980	2,506	84	82.0-85.2	2,830	806	28	26.1-30.1
Some College	3,019	1,590	54	51.5-55.8	3,019	2,629	87	85.4-88.4	2,901	1,081	37	35.1-39.4
College Degree	3,131	1,877	59	57.4-61.4	3,131	2,674	85	83.6-86.5	3,037	1,164	39	36.6-40.6
<b>Income:</b>												
<\$15,000	632	345	57	51.3-62.0	632	558	88	83.9-91.4	592	243	36	31.0-40.9
\$15,000 - \$24,999	1,433	748	54	50.9-57.4	1,433	1,269	89	86.9-90.7	1,388	562	41	38.0-44.9
\$25,000 - \$49,999	3,345	1,722	51	49.5-53.5	3,345	2,892	86	84.2-87.2	3,233	1,115	34	32.2-36.0
\$50,000 - \$74,999	1,661	904	53	50.7-56.1	1,661	1,438	86	84.5-88.2	1,614	537	33	30.7-35.8
\$75,000 +	1,494	874	59	55.7-61.4	1,494	1,265	85	82.7-86.8	1,450	535	37	34.6-40.3
<b>Race:</b>												
White	8,815	4,632	53	51.6-54.0	8,815	7,534	85	84.3-86.1	8,467	2,833	33	32.1-34.4
African American	1,476	851	56	52.6-59.5	1,476	1,333	89	86.5-91.0	1,399	814	59	55.3-62.4
Asian American	260	136	49	41.6-56.6	260	207	78	70.9-84.4	240	94	40	32.0-47.2
Native American	196	107	49	39.9-58.9	196	174	89	82.6-94.8	188	98	49	39.7-59.1
Hispanic Origin	2,120	1,076	51	47.9-53.6	2,120	1,865	88	86.2-89.7	2,002	776	36	33.4-39.0
<b>Place of Residence:</b>												
Rural	5,065	2,460	48	46.8-50.1	5,065	4,282	84	83.1-85.5	4,857	1,433	29	27.5-30.5
Urban	4,618	2,643	58	55.8-59.2	4,618	4,000	86	85.1-87.5	4,432	1,804	41	38.9-42.4

\*"Number" and "Percent" exclude missing, don't know, and refused responses, except in "Agree that Treatment Available . . . Baby" and "Very Important to Know HIV Status . . . Tested" where these responses are included.



<b>TABLE 45</b> <b>Main Reason for Most Recent HIV Blood Test</b> <b>Adults Aged 18-64 (2001-2003)</b>	
	<b>Percent</b>
ROUTINE REASONS	65
It was required	25
Part of a routine medical checkup	23
Pregnant	17
PERCEIVED RISK REASONS	26
Just wanted to find out whether had HIV	22
Thought may have gotten HIV through sex or drug use	2
Someone suggested should be tested	2
Worried could give HIV to someone	<1
OTHER REASONS	9

<b>TABLE 46</b> <b>Site of Most Recent HIV Blood Test</b> <b>Adults Aged 18-64 (2001-2003)</b>	
	<b>Percent</b>
Private doctor or HMO	49
Clinic	19
Hospital	16
At home	6
Counseling and testing site	4
Somewhere else	6
TOTAL	100

<b>TABLE 47</b> <b>HIV / AIDS</b> <b>Nebraska Adults Aged 18 - 64, 2001-2003</b> <b>(with 95% Confidence Intervals--SUDAAN)</b>								
	Respondents At "High Risk" for HIV Infection (2002-2003 Only)*				Counseled by Health Professional about STD Prevention Through Condom Use in Past 12 Months			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>Adults Aged 18-64</b>	6,880	167	3	2.3-3.4	9,403	769	10	8.9-10.5
<b>Gender:</b>								
Male	2,758	75	3	2.5-4.3	3,760	209	7	5.9-8.1
Female	4,122	92	2	1.8-2.9	5,643	560	12	11.3-13.6
<b>Age:</b>								
18-29	1,315	57	5	3.4-6.3	1,932	461	24	22.1-26.8
30-44	3,506	88	3	2.0-3.4	3,468	244	7	5.6-7.4
45-64	2,059	22	1	0.6-1.6	4,003	64	2	1.2-2.3
<b>Education:</b>								
<High School	370	21	7	3.8-10.7	508	85	17	13.5-21.4
High School	2,052	42	3	1.5-3.4	2,878	211	9	7.3-10.0
Some College	2,126	57	3	2.1-3.8	2,941	287	13	10.9-14.2
College Degree	2,326	47	2	1.4-3.0	3,067	186	6	5.3-7.5
<b>Income:</b>								
<\$15,000	438	23	6	3.1-9.8	609	111	23	17.9-27.7
\$15,000 - \$24,999	1,006	34	4	2.3-5.8	1,401	198	16	13.6-18.8
\$25,000 - \$49,999	2,344	65	3	2.2-4.0	3,281	222	8	6.5-9.0
\$50,000 - \$74,999	1,246	14	1	0.4-1.5	1,629	70	5	3.4-5.8
\$75,000 +	1,128	13	2	0.6-2.5	1,471	45	4	2.7-5.3
<b>Race:</b>								
White	6,278	141	3	2.1-3.2	8,585	586	8	7.4-9.0
African American	1,144	56	6	3.7-7.4	1,405	287	20	17.5-22.9
Asian American	192	2	1	-0.7-2.3	242	29	11	6.5-16.0
Native American	156	8	7	-0.3-14.3	191	32	14	8.5-19.9
Hispanic Origin	1,680	96	6	4.7-8.1	2,007	488	24	21.2-26.3
<b>Place of Residence:</b>								
Rural	3,616	72	3	1.8-3.2	4,922	306	8	6.6-8.7
Urban	3,264	95	3	2.4-4.0	4,481	463	12	10.8-13.2
*''Number'' and ''Percent'' exclude missing, don't know, and refused responses, except in ''Respondents at High Risk for HIV Infection'' where these responses are included.								

# IMMUNIZATIONS

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Immunizations against influenza and pneumococcal disease can prevent serious illness and death. Pneumonia and influenza deaths combined together constitute the sixth leading cause of death in the United States. In Nebraska, there were 31 deaths due to influenza and 404 deaths due to pneumonia in 2003.

Influenza vaccine (i.e., a “flu shot”) can prevent up to 70 percent of hospitalizations and 85 percent of deaths from flu-related pneumonia. Pneumonia vaccine can prevent up to 60 percent of serious pneumococcal infections, although it will not protect against other forms of pneumonia.

The Centers for Disease Control and Prevention currently recommend flu shots for people aged 50 and older, nursing home residents, children aged 6 to 23 months, pregnant women, people with chronic health problems and certain health care and daycare workers. It is also recommended that adults aged 65 and older receive a one-time immunization against pneumococcal disease.

## **INFLUENZA VACCINATIONS**

### **Definition**

At Risk: Among persons 50 and older, “No” to the question “During the past 12 months, have you had a flu shot?”

### **Current Prevalence**

In 2001-2003, 71 percent of Nebraska BRFSS respondents aged 65 and older reported having a flu shot within the past 12 months, while 29 percent said they had not been vaccinated for influenza during that period (Table 48).

Persons aged 50 to 64 (44 percent) were much less likely than respondents 65 and older to report being vaccinated for influenza during the specified time period.

### **Trend over Time**

Although the proportion of respondents aged 65 and older who had flu shots in the past 12 months was up substantially in 1995 (64 percent) from the 1993 study (53 percent), prevalence has increased more gradually since then (Figure 133).

Among respondents aged 50 to 64, the proportion who had a flu shot in the past year more than doubled between 1993 (22 percent) and 2003 (46 percent) (Figure 134).

### **Who Has Been Vaccinated in Nebraska?**

Overall, men (70 percent) and women (71 percent) aged 65 and over were about equally likely to say they had received a flu shot in the past year (Table 48).

Among respondents aged 65 and older, those with college degrees (76 percent) were significantly more likely than high school graduates (68 percent) to indicate they had gotten a flu shot. Among respondents aged 50 to 64, the proportion of college graduates receiving a flu shot in the last 12 months (49 percent) was significantly higher than the proportion of respondents who had not finished high school (35 percent).

The proportion of African American respondents aged 65 and older who had been vaccinated for influenza in the past year was significantly lower (53 percent) than the proportion of whites in this age group (71 percent).

Urban residents aged 50 to 64 were significantly more likely (48 percent) than their rural counterparts (41 percent) to report having a flu shot in the past 12 months.

No significant trends were apparent by annual household income of respondents.

### **Where Respondents Got Flu Shot**

Respondents to the 2002 BRFSS who received a flu shot in the past 12 months were asked, “At what kind of place did you get your last flu shot?” Among respondents aged 65 and older: 63 percent had gotten it at a doctor’s office or health maintenance organization; 9 percent, at another type of clinic or health center; 7 percent, at a store; and 6 percent, at a hospital or emergency room (Table 49).

For respondents under age 65, the workplace was mentioned most frequently as the place where they got their flu shot (40 percent), followed by the doctor’s office (32 percent). Nine percent reported being vaccinated for influenza at another type of clinic or health center, while four percent each mentioned a store, the health department, or a hospital.

### **Nebraska and the Nation**

The proportion of people aged 65 and over who had received an influenza vaccination in the past 12 months was higher in Nebraska (71 percent) than the national median of 68 percent (Figure 135). In the six surrounding states, rates ranged from a low of 69 percent in Kansas and Missouri to a high of 75 percent for South Dakota, Colorado, and Iowa.

## **PNEUMONIA VACCINATIONS**

### **Definition**

Respondents were read a description of the pneumonia shot: “This shot is usually given only once or twice in a person’s lifetime and is different from the flu shot. It is also called the pneumococcal vaccine.”

At Risk: Among persons aged 65 and older, “No” to the question, “Have you ever had a pneumonia shot?”

### **Current Prevalence**

More than six of every ten 2001-2003 BRFSS respondents aged 65 and over reported ever having a vaccination for pneumonia (62 percent).

### **Trend over Time**

The proportion of respondents aged 65 and older who had ever had a pneumonia vaccination has increased substantially since 1993 when data were first collected in the Nebraska BRFSS (Figure 136). Prevalence increased from 28 percent in 1993 to 36 percent in 1995, then continued to increase to 65 percent in 2003.

### **Who Has Been Vaccinated in Nebraska?**

Men (59 percent) were somewhat less likely than women (65 percent) to say they had ever been vaccinated for pneumonia, but the difference was not significant (Table 48).

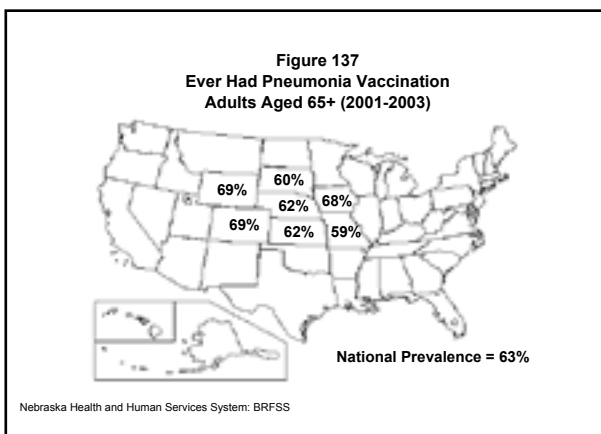
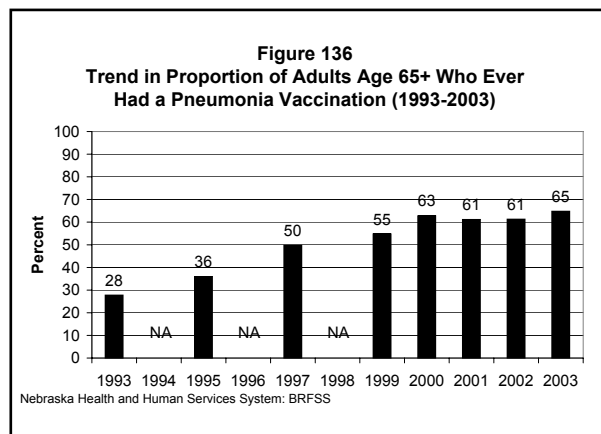
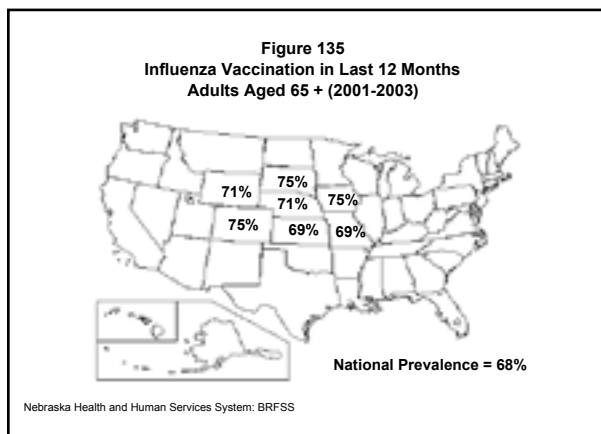
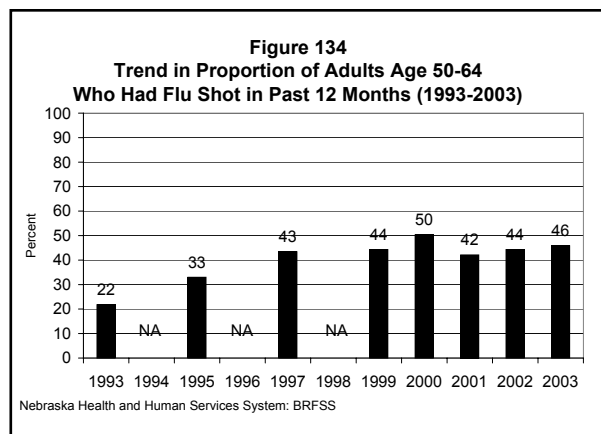
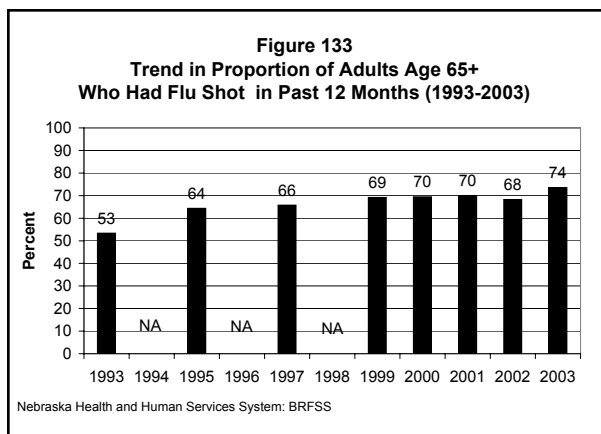
Hispanic Americans (47 percent) and African Americans (51 percent) in the 65-and-older age group were significantly less likely to report ever having a pneumonia vaccination than white Nebraskans this age (63 percent).

No significant differences in pneumonia vaccination prevalence were noted by education, household income, or place of residence of respondents aged 65 and older.

## Nebraska and the Nation

Nebraska (62 percent) ranked just below the national median (63 percent) in proportion of older adults (aged 65 and older) who ever received a pneumonia vaccination (Figure 137). Of the six surrounding states, Missouri (59 percent) and South Dakota (60 percent) reported lower rates than Nebraska. Colorado and Wyoming (69 percent each) and Iowa (68 percent) achieved higher rates.

NEBRASKA 2010 OBJECTIVES				
	Nebraska 2010 Target	Nebraska BRFSS 2001-2003	US BRFSS 2001-2003	US 2010 Target
Immunization rates among adults aged 65+ for:				
Influenza	90%	71%	68%	90%
Pneumonia	90%	62%	63%	90%



<b>TABLE 48</b> <b>Influenza and Pneumonia Vaccinations</b> <b>Nebraska Adults Aged 50-64 and 65 +, 2001-2003</b> <b>(with 95% Confidence Intervals--SIDAN)</b>												
	Flu Shot in Past Yr. (Aged 65 +)				Flu Shot in Past Yr. (Aged 50-64)				Ever Had Pneumonia Shot (Aged 65 +)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	3,235	2,277	71	68.9-72.5	2,859	1,268	44	42.0-46.1	3,187	1,980	62	60.5-64.3
<b>Gender:</b>												
Male	1,088	759	70	66.7-72.9	1,157	477	42	38.6-45.0	1,066	628	59	56.0-62.6
Female	2,147	1,518	71	69.1-73.5	1,702	791	46	43.7-49.0	2,121	1,352	65	62.2-66.9
<b>Education:</b>												
<High School	572	403	70	65.7-74.1	145	54	35	25.8-44.0	561	334	60	55.3-64.3
High School	1,441	979	68	65.6-71.2	1,015	421	42	39.0-45.8	1,424	861	61	57.6-63.6
Some College	725	522	72	68.8-76.0	847	368	43	38.8-46.2	717	469	66	62.6-70.2
College Degree	480	362	76	71.9-80.8	848	422	49	45.5-53.1	469	306	66	60.6-70.6
<b>Income:</b>												
<\$15,000	439	296	67	62.0-72.0	173	72	41	32.4-49.6	432	269	62	56.8-67.1
\$15,000 - \$24,999	940	657	71	67.1-73.8	400	180	44	38.0-49.1	927	582	63	59.7-66.8
\$25,000 - \$49,999	764	559	74	70.1-77.3	978	389	40	36.1-43.0	751	477	64	60.2-68.1
\$50,000 - \$74,999	141	107	77	70.1-84.6	473	227	46	40.6-50.6	140	87	63	54.4-71.6
\$75,000 +	98	73	75	65.3-84.1	477	223	48	42.9-52.7	96	59	63	52.0-73.3
<b>Race:</b>												
White	3,115	2,214	71	69.6-73.2	2,709	1,213	44	42.2-46.4	3,069	1,927	63	61.0-64.9
African American	449	244	53	47.1-59.0	418	155	39	32.5-44.7	436	220	51	44.8-56.9
Asian American	17	#	#	#	20	#	#	#	16	#	#	#
Native American	35	#	#	#	59	23	47	26.2-67.0	35	#	#	#
Hispanic Origin	200	128	62	54.0-70.2	252	105	37	29.6-44.6	194	101	47	38.4-55.3
<b>Place of Residence:</b>												
Rural	2,134	1,467	70	67.4-71.7	1,637	684	41	38.6-43.9	2,101	1,268	61	58.8-63.4
Urban	1,101	810	73	69.7-76.1	1,222	584	48	44.7-51.1	1,086	712	65	61.6-68.3

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.  
# - Data not reported due to N < 50.

<b>TABLE 49</b> <b>Kind of Place Where Respondent</b> <b>Got a "Flu Shot" by Age Group (%)</b> <b>Nebraska Adults (2001-2003 BRFSS)</b>			
	<b>Age 18 - 64</b>	<b>Age 65 +</b>	<b>Total</b>
Kind of Place	(%)	(%)	(%)
Doctor's office/HMO	32	63	42
Workplace	40	4	28
Another type of clinic/health ctr.	9	9	9
Store	4	7	5
Hospital	4	6	4
Health department	4	4	4
Senior center	<1	4	2
Other	7	3	6



# ORAL HEALTH

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Millions of people nationwide experience dental cavities or periodontal disease. Many more have lost all their teeth. Early tooth loss caused by dental decay in children can result in failure to thrive, impaired speech development, absence from and inability to concentrate in school and reduced self-esteem. Children may also develop permanent disabilities that effect their ability to learn and grow.

Untreated dental decay in older persons can lead to pain, abscesses, and eventual loss of teeth. Periodontal disease is a leading cause of bleeding, pain, infection, tooth mobility, and tooth loss. Even when missing teeth are replaced with dentures, there may be limitations in speech, ability to chew, and overall quality of life.

Dental disease is one of the most preventable of health problems. Proper dental hygiene and good eating habits, combined with regular professional dental care, decrease the risk of developing cavities and periodontal disease.

## **VISITS TO THE DENTIST**

### **Definition**

At Risk: Have not visited the dentist or a dental clinic for any reason within the past year.

### **Current Prevalence**

Nearly three-fourths of the adults surveyed in the 2001-2003 BRFSS (74 percent) said they had visited the dentist within the past year (Figure 138). For 10 percent, it had been one to two years since their last visit. Ten percent of respondents stated it had been five years or more since they had been to the dentist.

### **Who Has Visited the Dentist in the Past Year?**

Women (76 percent) were significantly more likely than men (72 percent) to have visited the dentist in the last year (Table 50).

The proportion of respondents who visited the dentist in the past 12 months was fairly constant in all age groups, except for those who were 65 years or older. Respondents in the 65-and-older bracket (67 percent) were significantly less likely than those in each of the younger groups (74 to 77 percent) to report a dental visit in the last year.

The proportion of respondents who had visited the dentist in the past 12 months increased significantly with each increasing educational level (Figure 139). Among persons who had not completed high school, only 53 percent had seen the dentist this recently. More than two-thirds of high school graduates (69 percent) and three-fourths of persons with some college or technical training (76 percent) reported a dental visit within the past year. For college graduates, the proportion was even higher (84 percent).

A similar trend is evident by household income of respondents. The likelihood of a dental visit within the last 12 months increased significantly for each of the income brackets of \$25,000 or higher shown in Table 50. For respondents with annual incomes below \$25,000, 58 to 64 percent had seen the dentist this recently. Proportion of respondents reporting a dental visit in the past year rose significantly in the \$25,000 to \$49,999 bracket (73 percent) and continued upward with increasing income to 90 percent among respondents earning \$75,000 or more per year.

White adults (75 percent) were significantly more likely to have visited the dentist in the last 12 months than Hispanic Americans (58 percent), Native Americans (64 percent), and African Americans (68 percent) (Figure 140). African Americans and Asian Americans (75 percent) were also significantly more likely than Hispanic Americans in Nebraska to have seen the dentist in this time period.

The proportion of urban Nebraskans who had seen the dentist this recently (80 percent) was significantly greater than the proportion of rural residents (69 percent).

### **Reason for Not Visiting the Dentist**

In the 2001 BRFSS, respondents who had not visited a dentist in the past 12 months were asked for the main reason they had not seen the dentist during this time period (Table 50). The most frequently mentioned reason (44 percent) was that they had “no reason to go” (i.e., no problems or no teeth). A substantial proportion (23 percent) did not go because of the cost of dental care, while 10 percent indicated that fear or nervousness kept them from going. Seven percent cited “other priorities” and four percent each said they do not have a dentist or they just “have not thought of it.”

More than one-third of respondents under age 45 (35 percent) gave cost as the primary reason they did not go the dentist within the last year (Table 50). Significantly fewer respondents aged 45 to 64 mentioned cost (19 percent). For those aged 65 and older, only six percent said cost was the reason.

The proportion of respondents aged 65 and older (73 percent) who had not visited the dentist because they had “no reason to go” (no teeth or no dental problems) was significantly higher, compared to younger respondents. About one-half of 45- to 64-year-olds (49 percent) gave this reason, as did only about one-fourth of 18- to 44-year-olds.

Persons with less education were also significantly more likely than persons with a college degree or some college or technical training (32 percent) to say they had no reason to go the dentist in the last year. One-half of high school graduates (50 percent) and 60 percent of persons who had not completed high school cited this factor when asked why they had not visited the dentist.

### **Nebraska and the Nation**

In 2002, an average of 69 percent of adults nationwide stated their last visit to the dentist occurred during the last 12 months (Figure 141), compared to 73 percent in Nebraska. Of the six surrounding states, only Iowa fared better with 75 percent of adults visiting the dentist in the last year, while the Kansas rate (73 percent) matched Nebraska's. In the other four states, rates ranged from 65 percent in Missouri to 72 percent in South Dakota.

## **LOSS OF PERMANENT TEETH**

### **Definition**

Number of permanent teeth lost: Responses to the question, “How many of your permanent teeth have been removed because of tooth decay or gum disease? Do not include teeth lost for other reasons, such as injury or orthodontics.”

### **Current Prevalence**

More than one-half of adults in the 2001-2003 Nebraska BRFSS (56 percent) reported that they had lost no teeth due to these dental problems (Figure 142). About one-fourth (27 percent) said they had one to five teeth removed due to decay or gum disease. Nine percent had lost six or more teeth, while eight percent had at some time had all their teeth removed.

### **Who Has Lost Permanent Teeth?**

Men (57 percent) and women (56 percent) were about equally likely to say they had none of their permanent teeth removed. However, a significantly greater proportion of women (nine percent) stated they had lost all their teeth, compared to men (seven percent). (Table 51).

The proportion of persons who had lost all their permanent teeth increased significantly with age of respondent, ranging from zero percent of 18- to 29-year-olds to 25 percent of persons aged 65 and older (Figure 143).

Significant differences were also noted by educational level of respondent (Table 51). More than one-fifth of those with less than a high school education (21 percent) reported loss of all their teeth to decay or gum disease—nearly double the rate among high school graduates (11 percent). Proportion of respondents who had all their teeth removed decreased further among those with some college (five percent) and among college graduates (two percent).

Similarly, lower-income respondents were significantly more likely than respondents with higher incomes to have lost all their permanent teeth. Eighteen percent of adults with annual incomes below \$15,000 stated their teeth had all been removed. Prevalence of tooth loss decreased with increasing income level to a low of only one to two percent among adults with incomes of \$50,000 or more per year.

African Americans (11 percent) were significantly more likely to have lost all their teeth to decay or gum disease than whites (8 percent), or Hispanic Americans (3 percent) in Nebraska. The proportion of whites reporting loss of all their permanent teeth was also significantly greater than proportion of Hispanic Americans.

Ten percent of Nebraskans living in rural counties stated that they had all their teeth removed, compared to only five percent of urban residents of the state (a statistically significant difference).

### **Nebraska and the Nation**

The median proportion of persons with loss of six or more teeth from gum disease or decay was 18 percent nationwide in 2002 (Figure 144), compared to 17 percent for Nebraska. Of the six surrounding states, Colorado reported the lowest rate (11 percent), while the rate for Missouri was the highest (22 percent).

## **TEETH CLEANING**

### **Definition**

At Risk: Have not had teeth cleaned by a dentist or dental hygienist within the past year (among respondents who have ever visited a dentist and who have not had all their teeth removed)

### **Current Prevalence**

More than three-fourths of all respondents to the 2001-2003 BRFSS who had ever been to the dentist and who had not had all their teeth extracted (77 percent) said they had their teeth cleaned within the past year (Figure 145). For 10 percent, it had been one to two years since their last cleaning. Six percent of adults stated it had been five years or more since they last had a dentist or hygienist clean their teeth, while less than one percent reported they never had their teeth cleaned.

### **Who Has Had Teeth Cleaned?**

A significantly greater proportion of women (80 percent) had their teeth cleaned in the past year, compared to men (74 percent) (Table 51).

Persons aged 45 and older (79 percent) were significantly more likely than persons aged 30 to 44 (74 percent) to say they had their teeth cleaned in the last 12 months. Among 18- to 29-year-olds, 75 percent reported having a dental cleaning done during this time period.

The proportion of adults who had a dental visit for teeth cleaning in the past year increased significantly with increasing educational level (Figure 146). Only 61 percent of persons who had not completed high school had their teeth cleaned within the year. In contrast, 84 percent of college graduates reported having a dental cleaning within this time period.

A similar trend is apparent by household income of respondents. Only 64 percent of those in the lowest income bracket (<\$15,000 per year) said they had their teeth cleaned during the past 12 months, as did 69 percent of those earning \$15,000 to \$24,999 per year. Persons with incomes in the next higher bracket

(\$25,000 to \$49,999) were significantly more likely to report a dental cleaning (74 percent). Persons in the two highest income categories were also significantly more likely than those with lower incomes to report having their teeth cleaned in the last year.

The proportion of white respondents indicating they had their teeth cleaned in the last year (77 percent) was significantly higher than the proportion reported by African Americans (69 percent) and Hispanic Americans (63 percent). African Americans, Asian Americans (75 percent), and Native Americans (74 percent) all reported significantly higher rates than Hispanic Nebraskans in this survey.

In comparison to rural Nebraskans (73 percent), urban residents (81 percent) were significantly more likely to have had a dental cleaning in the past 12 months.

## **Nebraska and the Nation**

On average, 69 percent of American adults participating in the 2002 BRFSS stated they had their teeth cleaned within the past 12 months (Figure 147). Nebraska, with 76 percent for the year, fared better than the nation and five of the six surrounding states. Only Iowa matched Nebraska's rate of 76 percent. Rates for the other states ranged from 65 percent in Wyoming to 73 percent in Kansas.

## **DENTAL INSURANCE**

### **Definition**

Have dental insurance: "Yes" to the question, "Do you have any kind of insurance coverage that pays for some or all of your routine dental care, including dental insurance, prepaid plans such as HMO's, or government plans such as Medicaid?"

### **Current Prevalence**

In 2001, 54 percent of adults reported that they have some kind of dental insurance (Table 51).

### **Who Has Dental Insurance?**

Men (56 percent) were slightly more likely than women (52 percent) to indicate they are covered by dental insurance, but the difference was not statistically significant.

The highest rate of dental insurance coverage was recorded for adults aged 30 to 44 years (67 percent) (Figure 148). This age group was significantly more likely than persons aged 45 to 64 (57 percent) to have dental insurance. Among young adults aged 18 to 29, 62 percent stated they have this kind of coverage. Respondents aged 65 and older (20 percent) reported significantly lower rates than each of the other age groups.

Rates of dental insurance coverage rose significantly with each increase in educational level (Figure 149). Among respondents with less than a high school education, only 33 percent were covered. The coverage rate increased to nearly one-half (48 percent) for high school graduates, while 57 percent of respondents with some college or technical training indicated they had dental insurance. More than two-thirds of college graduates (68 percent) had dental coverage.

The proportion of adults with dental insurance was generally significantly higher among the higher income brackets. Among respondents earning \$15,000 to \$24,999, 36 percent had dental coverage, while those in the next bracket (\$25,000 to \$49,999) reported a significantly greater proportion (56 percent). Persons with incomes of \$50,000 or above had significantly higher rates than all other income levels (72 to 75 percent). The exception to this trend is respondents in the lowest income category (<\$15,000 per year), where more than one-half (52 percent) indicate dental coverage (perhaps due to participation in public programs such as Medicaid).

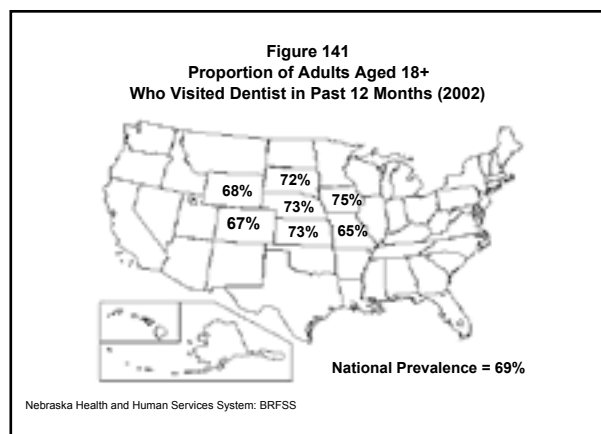
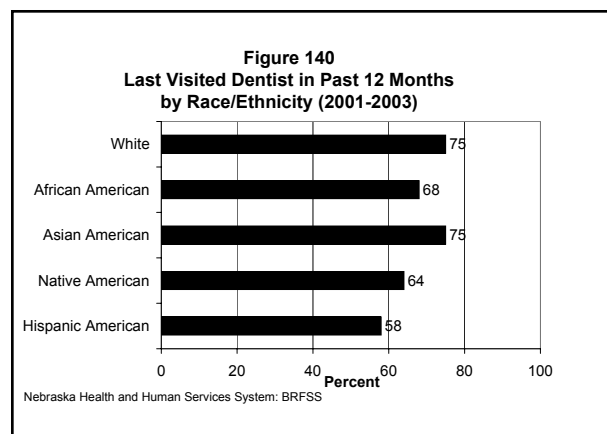
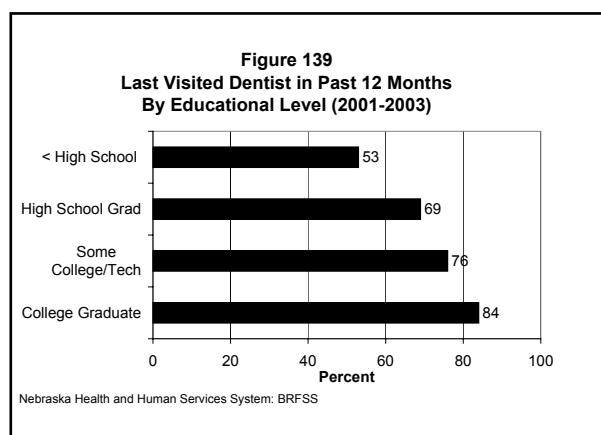
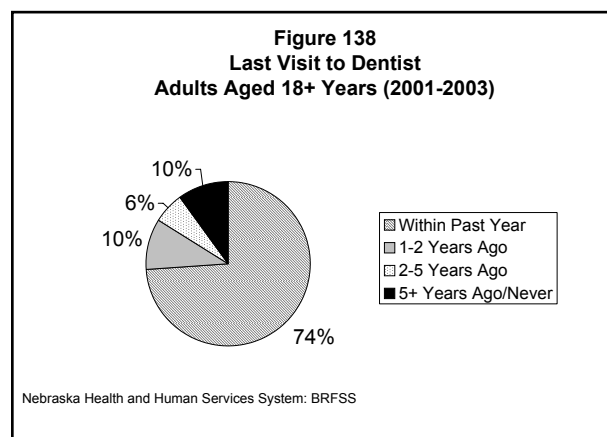
Both African Americans (69 percent) and Asian Americans (70 percent) reported significantly higher rates of dental coverage than white (54 percent) or Hispanic (47 percent) Nebraskans.

Urban Nebraskans (63 percent) were significantly more likely than rural residents (46 percent) to have dental insurance.

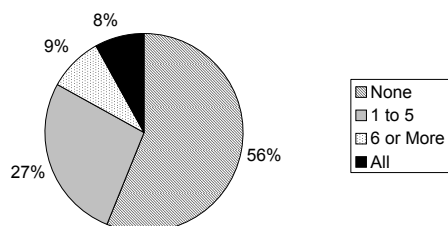
### Dental Insurance vs. Dental Visits and Tooth Loss

Adults without dental insurance were less likely to have a visit to the dentist within the past year (66 percent) than adults who have this coverage (81 percent) (Figure 150). They were also more likely to say it had been more than five years since they went to the dentist or had never gone (16 percent vs. 6 percent for those with insurance).

Tooth loss was also much more common among adults who had no dental insurance. Nearly four of every ten adults without coverage (39 percent) indicated they had lost six or more permanent teeth to decay or gum disease. Only 15 percent of respondents who had insurance said they had lost this many teeth.

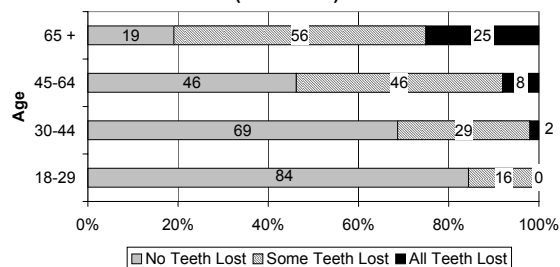


**Figure 142**  
**Number of Permanent Teeth Removed**  
**Due to Tooth Decay or Gum Disease (2001-2003)**



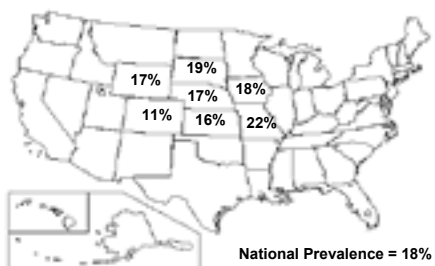
Nebraska Health and Human Services System: BRFSS

**Figure 143**  
**Loss of Permanent Teeth by Age of Respondent**  
**(2001-2003)**



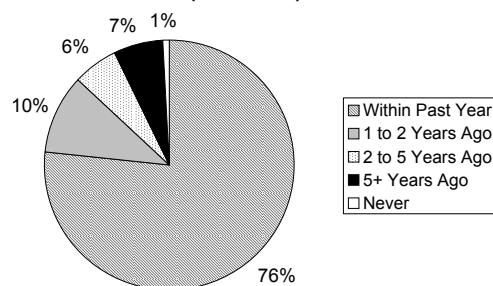
Nebraska Health and Human Services System: BRFSS

**Figure 144**  
**Proportion of Adults Who Had 6 or More Teeth**  
**Removed due to Decay or Gum Disease (2002)**



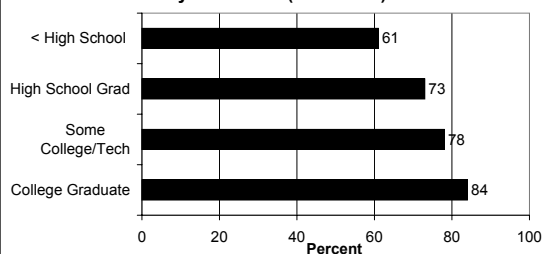
Nebraska Health and Human Services System: BRFSS

**Figure 145**  
**Last Time Respondents Had Their Teeth Cleaned**  
**(2001-2003)**



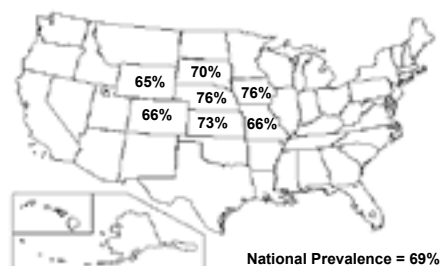
Nebraska Health and Human Services System: BRFSS

**Figure 146**  
**Had Teeth Cleaned in Past 12 Months**  
**by Education (2001-2003)**

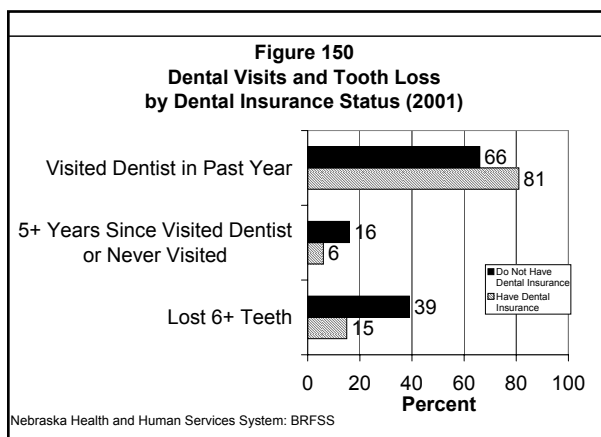
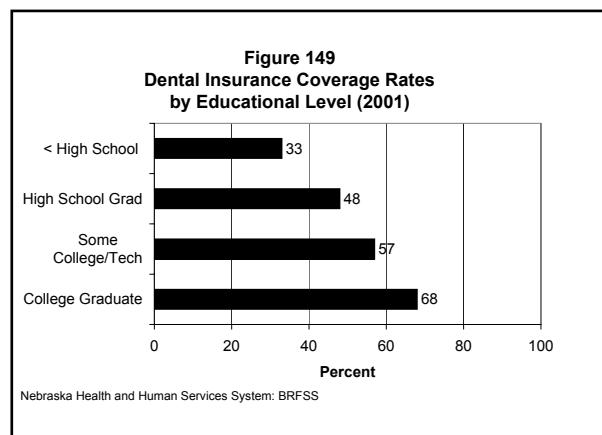
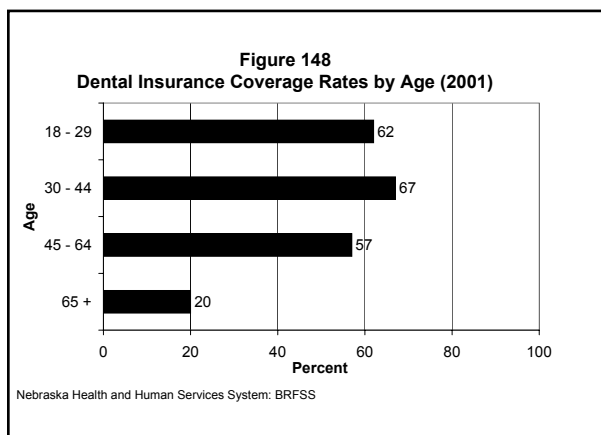


Nebraska Health and Human Services System: BRFSS

**Figure 147**  
**Proportion of Adults Who Had Their Teeth**  
**Cleaned in Past 12 Months (2002)**



Nebraska Health and Human Services System: BRFSS



**TABLE 50**  
**Oral Health--Dental Visits**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	Visited Dentist in Past 12 Months				Have Not Visited Dentist Due to No Need* (2001 Only)				Have Not Visited Dentist Due to Cost* (2001 Only)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	12,661	9,353	74	73.0-74.8	830	389	44	40.6-48.3	830	177	23	19.6-26.6
<b>Gender:</b>												
Male	4,871	3,461	72	70.4-73.3	341	166	46	40.5-52.2	341	66	21	16.2-26.6
Female	7,790	5,892	76	74.8-77.0	489	223	43	37.6-47.5	489	111	25	20.0-29.4
<b>Age:</b>												
18-29	1,931	1,424	74	72.1-76.6	131	32	25	16.6-33.5	131	46	35	25.4-44.2
30-44	3,493	2,699	75	73.7-77.1	202	54	26	19.8-33.1	202	68	35	26.8-42.9
45-64	4,053	3,114	77	75.0-78.0	233	110	49	42.2-56.5	233	46	19	13.1-24.0
65 +	3,117	2,063	67	64.9-68.6	260	192	73	67.3-79.6	260	16	6	3.0-9.6
<b>Education:</b>												
<High School	1,054	534	53	49.0-56.3	157	98	60	51.2-68.8	157	27	19	11.9-27.0
High School	4,303	2,934	69	67.3-70.6	329	171	50	44.0-56.5	329	66	22	16.9-27.8
Some College	3,697	2,833	76	74.8-78.0	204	68	32	24.9-39.3	204	53	27	19.6-35.0
College Degree	3,581	3,030	84	82.5-85.3	138	50	32	23.7-40.3	138	31	23	14.6-30.8
<b>Income:</b>												
<\$15,000	1,035	556	58	54.1-61.8	118	62	47	36.3-57.4	118	27	29	17.7-40.3
\$15,000 - \$24,999	2,328	1,480	64	61.5-66.4	186	90	44	36.0-52.2	186	44	27	18.8-35.6
\$25,000 - \$49,999	4,053	3,008	73	71.7-74.9	267	109	42	35.0-48.0	267	62	22	16.8-27.6
\$50,000 - \$74,999	1,781	1,512	84	81.8-85.7	50	17	38	22.3-52.7	50	13	27	13.1-40.7
\$75,000 +	1,590	1,453	90	88.0-91.8	46	#	#	#	46	#	#	#
<b>Race:</b>												
White	11,716	8,715	75	73.8-75.6	752	362	46	41.6-49.7	752	154	22	18.4-25.6
African American	1,839	1,244	68	64.6-70.4	80	33	43	30.6-56.1	80	17	20	10.6-28.6
Asian American	264	194	75	68.4-81.1	18	#	#	#	18	#	#	#
Native American	230	144	64	55.2-72.3	12	#	#	#	12	#	#	#
Hispanic Origin	2,204	1,325	58	55.4-60.9	145	58	38	29.3-46.9	145	49	36	26.3-44.8
<b>Place of Residence:</b>												
Rural	7,051	4,898	69	67.9-70.4	523	255	45	40.3-50.1	523	117	24	19.2-28.2
Urban	5,610	4,455	80	78.3-80.8	307	134	43	36.9-49.3	307	60	22	16.4-27.5

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.  
 \*During the past 12 months.

# - Data not reported due to N < 50.



**TABLE 51**  
**Oral Health**  
**Nebraska Adults, 2001-2003**  
**(with 95% Confidence Intervals--SUDAAN)**

	All Permanent Teeth Removed*				Dental Cleaning in Past 12 Months**				Have Dental Insurance (2001 Only)			
	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval	Total Number	Number	Percent	Confidence Interval
<b>All Adults</b>	12,595	1,175	8	7.2-8.3	11,416	8,819	77	75.8-77.6	3,476	1,813	54	52.0-55.9
<b>Gender:</b>												
Male	4,848	387	7	6.0-7.5	4,437	3,248	74	72.1-75.1	1,337	728	56	52.6-58.8
Female	7,747	788	9	8.0-9.4	6,979	5,571	80	78.5-80.7	2,139	1,085	52	49.9-54.8
<b>Age:</b>												
18-29	1,940	7	0	0.0-0.4	1,905	1,400	75	72.8-77.3	627	394	62	57.4-66.9
30-44	3,507	56	2	1.4-2.6	3,418	2,603	74	72.7-76.1	947	637	67	63.3-70.6
45-64	4,009	319	8	7.1-9.1	3,703	2,926	79	77.3-80.3	1,078	618	57	53.8-60.5
65 +	3,077	787	25	23.7-27.1	2,328	1,838	79	77.3-81.0	800	150	20	16.6-23.4
<b>Education:</b>												
<High School	1,057	281	21	18.8-24.1	753	457	61	56.6-65.1	325	91	33	26.6-39.3
High School	4,269	587	11	10.2-12.2	3,697	2,688	73	71.0-74.4	1,236	573	48	44.4-51.4
Some College	3,685	223	5	4.4-5.9	3,453	2,692	78	76.0-79.3	1,023	553	57	53.1-60.2
College Degree	3,559	79	2	1.4-2.4	3,490	2,963	84	82.4-85.3	879	590	68	64.4-71.3
<b>Income:</b>												
<\$15,000	1,035	239	18	15.7-20.9	795	484	64	59.7-68.2	292	131	52	44.3-59.8
\$15,000 - \$24,999	2,313	362	13	11.6-14.7	1,935	1,330	69	66.0-71.2	610	219	36	31.6-40.8
\$25,000 - \$49,999	4,033	261	6	5.5-7.1	3,770	2,853	74	72.8-76.1	1,149	654	56	52.6-59.6
\$50,000 - \$74,999	1,768	37	2	1.3-2.8	1,743	1,482	84	82.1-86.0	417	302	72	67.4-77.0
\$75,000 +	1,584	17	1	0.6-2.0	1,571	1,424	89	87.4-91.2	385	271	75	70.1-79.3
<b>Race:</b>												
White	11,642	1,100	8	7.3-8.4	10,564	8,219	77	76.4-78.3	3,216	1,671	54	52.4-56.4
African American	1,827	234	11	9.1-12.7	1,589	1,113	69	66.3-72.5	342	233	69	63.0-75.3
Asian American	266	9	3	0.6-4.7	245	183	75	68.2-81.8	63	44	70	58.0-82.4
Native American	231	31	12	6.6-18.2	197	132	74	67.0-81.7	45	#	#	#
Hispanic Origin	2,227	83	3	2.1-3.6	2,011	1,277	63	59.8-65.5	440	212	47	41.6-53.0
<b>Place of Residence:</b>												
Rural	7,006	834	10	9.2-10.7	6,166	4,552	73	71.3-74.0	1,942	857	46	43.7-49.0
Urban	5,589	341	5	4.5-5.8	5,250	4,267	81	79.9-82.4	1,534	956	63	60.4-66.3

NOTE: "Number" and "Percent" exclude missing, don't know, and refused responses.

\*Due to decay or gum disease.

\*\*Among respondents who had ever been to dentist and who had not had all their teeth extracted.

# - Data not reported due to N < 50.

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